HELMINTHOLOGICAL ABSTRACTS

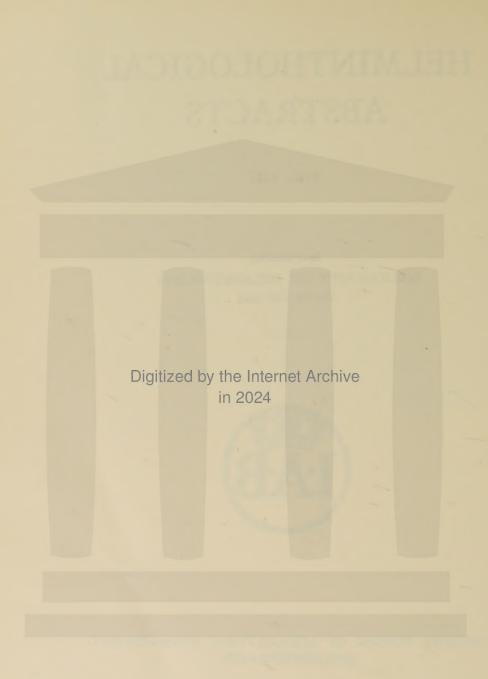
VOL. XIII

incorporating
BIBLIOGRAPHY OF HELMINTHOLOGY
For the Year 1944



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY (HELMINTHOLOGY)

Winches Farm Drive, Hatfield Road St. Albans, England



HELMINTHOLOGICAL ABSTRACTS

INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY FOR THE YEAR 1944.

Vol. XIII, Part 5.

319-Acta Zoologica Fennica.

 ALAROTU, H., 1944.—"Untersuchungen über die an Fischen in Finnland lebenden monogenetischen Trematoden." No. 43, 52 pp.

(319a) This monograph provides systematic descriptions, with differential tables, of 20 monogenetic trematodes found in fish in Finland belonging to the genera Monocoelium, Gyrodactylus, Dactylogyrus and Diplozoon. Of 15 species of Dactylogyrus 2 are new, viz., D. graciliuncinatus n.sp. and D. grislaginis n.sp. There is a lengthy description of Monocoelium monenteron. The bibliography contains nearly 400 references.

320-Afrique Française Chirurgicale.

*a. LABORIT, H., 1944.—" Sur un cas de rupture traumatique intrapéritonéale d'un kyste hydatique suppuré avec libération de la vésicule-mère." 2, 94-97.

321-Air Surgeon's Bulletin.

*a. WESTWATER, J. O., 1944.—" Filariasis bancrofti." 1 (10), 22-23.

322-Állatorvosi Lapok.

*a. GRABÓ, B., 1944.-" Zur mikroskopischen Diagnose der Distomatosis." 67, 4.

(322a) According to an abstract in Tierärztliche Zeitschrift, 1944, p. 12, Grabó recommends a direct faecal smear for showing liver-fluke eggs.

B.G.P.

323-American Journal of Clinical Pathology.

a. SUESSENGUTH, H., & KLINE, B.S., 1944.—"A simple rapid flocculation slide test for trichinosis in man and in swine." 14 (9), 471-484.

(323a) The fact that an alkaline aqueous extract of powdered trichinella larvae has the property of coating cholesterin crystals, is the basis of a simple and accurate slide flocculation test for the diagnosis of trichinosis. The antigen is prepared by extracting dried larvae with sodium carbonate followed by centrifugation and decanting the supernatant fluid. An emulsion is obtained from this by adding it in a certain way to an emulsion of cholesterol in water and shaking vigorously. After leaving overnight in a refrigerator the mixture should contain coated crystals of uniform size. The actual test takes place in the chamber of a paraffin ringed slide. The serum to be examined is heated, placed in the chamber and a drop of the emulsion added. The slide is then rotated at a rate of 150 to the minute. Positive sera cause clumping of the crystals. The test proved to be simple, specific and sensitive.

324-American Journal of Clinical Pathology. Technical Section.

a. McNAUGHT, J. B., 1944.—"Laboratory procedures for the diagnosis of trichinosis." 8 (5), 87-02.

87-93.
b. GOULD, S. E., 1944.—"A new type of trichinoscope." 8 (5), 98-100.
c. LATHROP, G. E., 1944.—"A method for mounting of helminth ova." 8 (5), 135-136.

(324a) As the clinical symptoms of trichinosis are often somewhat atypical, it is advisable to use all possible laboratory techniques to assist in diagnosis. McNaught suggests the examina-

*Titles so marked throughout this number have not been seen in the original.

tion of stool, blood, cerebrospinal fluid or biopsy for the recovery of larvae. The blood stream will often show a marked eosinophilia with some degree of leucocytosis. Much evidence may also be obtained by means of skin tests, from precipitation and flocculation tests.

(324b) A relatively inexpensive and easily manufactured trichinoscope of ring shape is described and illustrated. It consists of two circular glass plates 11.5 cm. in diameter and 3.3 mm. in thickness, two flat ring-shaped frames of metal or steel and two bolts with winged finger nuts. The frame can be lathed in a few moments and when assembled the compression is uniformly distributed.

(324c) A combination of the well-known glycerine jelly and Canada-balsam methods of mounting is described. The concentrated faeces are dehydrated in alcohol up to 95% and passed through glycerine-alcohol mixtures to pure glycerine, then mixed with glycerine jelly in a 2: I proportion. A drop of the jelly is placed between two No. I cover slips, one 3" circle, the other $\frac{7}{8}$ square. The preparation is then mounted with the circle downwards on a slide in a drop of moderately thin balsam.

325—American Journal of Nursing.

*a. CULBERTSON, J. T., 1944.—"Filariasis; old problem with new importance." 44, 637-639.

326-American Review of Tuberculosis.

a. BOBROWITZ, I. D., 1944.—"Round densities within cavities; lung lesions simulating the pathognomonic roentgen sign of echinococcus cyst." 50 (4), 305-315.

327—Anais Brasileiros de Ginecologia.

*a. SANTOS, F. DOS, 1944.—"Um caso de localização de "Ascaris" na parede do ventre." 18, 123-124.

328-Anais do Instituto de Medicina Tropical, Lisboa.

a. SARMENTO, A., 1944.—" Notas sôbre um foco de bilharziose vesical em Angola." 1, 375-380.

(328a) An examination of the native population of Cuchi, Angola, shows that 60.2% of the children and 21.5% of the adults are infested with vesical bilharziosis. Though mortality from the disease is not high yet it results in inefficiency, debility and liability to other diseases, all of which together produce a problem of considerable importance to the public health authority. The control of this disease in Cuchi is difficult, not only because of its high incidence over a large area but also because rivers are wide and the backward natives do not understand the importance of prophylaxis. P.A.C.

329-Anales de la Cátedra de Patología y Clínica de la Tuberculosis.

*a. VACCAREZZA, R. F., POLLITZER, G. & MÉDICI, F. A., 1944.—" Equinococosis pleural múltiple, consecutiva a un neumotórax hidatídico." 6, 338-344.

330-Anales de la Facultad de Veterinaria. Montevideo.

a. POU, M. C., FIELITZ, F. & CALZADA, V., 1944.—" Sobre un caso de tetramerosis."

4 (3), 403-409.

b. CASSAMAGNAGHI, Jr., A., 1944.—" Nueva especie de Microfilaria localizada en nódulos de la pleura, en Gallus gallus domesticus." 4 (3), 439-441.

(330a) Pou et al. record the presence of Tetrameres confusa in pigeons in Montevideo. They occurred in the proventriculus causing chronic gastritis with areas of necrosis; death had occurred in a number of cases. There was also considerable enteritis in the affected birds.

(330b) In pleural nodules of a chicken in Montevideo, microfilariae were found lying in a yellowish semi-fluid matrix. The larvae were sheathed and measured 17.12 µ long and had a long tapering tail. The nodules varied in size from that of a pea to that of a nut. This would seem to be the first record of microfilarial nodules in chickens. The author believes the species to be new but does not give it a name. P.A.C.

331-Anales del Instituto de Biologia. Mexico.

a. LARIOS, I., 1944.—" Una especie del género Cyclocoelum encontrada en Fulica americana del

Lago de Texcoco, Méx." 15 (2), 375-378.

CABALLERO Y C., E., 1944.—" Nemátodos de los reptiles de México. X. Un representante del género Tachygonetria Wedl., 1862, en una tortuga terrestre del Valle de México." 15 (2),

379-382.
c. CABALLERO Y C., E., 1944.—" Una nueva especie del género *Litomosoides* y consideraciones

acerca de los caracteres sistemáticos de las especies de este género." 15 (2), 383–388.
d. CABALLERO Y C., E. & CERECERO, M. C., 1944.—"Estudios helmintológicos de la región oncocercosa de México y de la República de Guatemala. Nematoda. Segunda parte."

(331a) Cyclocoelum pseudomicrostomum Harrah, is redescribed by Larios from Mexican specimens; these are larger than the North American forms from the same host, and the organs are proportionally larger except that the testes : ovary ratio is greater in the Mexican form.

(331b) Caballero describes Tachygonetria tetrapapillata n.sp., a nematode parasite of the intestine of Gopherus polyphemus in Mexico. It can be distinguished by the presence of a pair of pre-cloacal and a pair of caudal papillae. The shape and size of the spicules and gubernaculum are further useful characters.

(331c) Litomosoides carolliae n.sp. from the abdominal cavity of Carollia perspicillata azteca in Mexico can be distinguished from L. carinii and L. brasiliensis by the structure of the spicules and the number of caudal papillae. It is not likely to be confused with other species of the genus because of the characters of the buccal capsule and vulval opening.

(331d) Caballero & Cerecero give new descriptions of Globocephalus marsupialis, Aspidodera raillieti, Cruzia tentaculata, Gongylonema pulchrum and Physaloptera turgida, all parasites of Didelphis mesamericana tabascensis in Chiapas. From the same host they describe for the first time Gongylonemoides mexicanum n.sp. which occurred in the oesophageal mucosa. While resembling G. marsupialis in many ways, it can be recognized by the structure of the spicules and number of caudal papillae.

332-Anales Policlínica de Enfermedades Infecciosas del Profesor Adjunto Dr. Carlos Alberto Videla.

a. VIDELA, C. A. & SCHODELLER, J. A., 1944.—" Distomatosis hepática." No. 4, pp. 144-

163. [English, French & German summaries pp. 162-163.]
VIDELA, C. A., PEDACE, E. A. & CASIRAGHI, J. C., 1944.—"Histopatología de la reacción de Casoni." No. 4, pp. 353-367. [English, French & German summaries p. 367.]

(332a) The authors give a detailed account of the symptomatology, evolution and treatment of a human case of Fascioliasis hepatica.

(332b) Videla et al. have examined the histological changes that occur as a result of the Casoni reaction during routine tests for hydatid. They performed a number of biopsies at different stages of the reaction. There is a perivascular infiltration of lymphocytes and mononuclears. This is superficial at first and later involves deeper tissues. Oedema occurs and fibrocytes are sometimes seen. The reaction is essentially of an allergic nature but the authors did not find the marked eosinophilia that has been recorded by other workers in the field.

P.A.C.

333-Annals of Internal Medicine.

a. SWEENEY, J. S., QUEEN, F. B. & BARRETT, T. F., 1944.—"Trichinosis: a sporadic outbreak with report of a case." 21 (6), 1037-1041.

(333a) Symptoms of trichinosis may continue over a very considerable period of time. In a small outbreak involving 38 clinical cases there were residual symptoms of muscle soreness and acute cramps in the leg muscles. Although the patients were able to do some work, they tired very easily and were only able to attend to a quarter to half their normal duties.

334-Antiseptic. Madras.

a. NARAYAN, A., 1944.—"Atypical forms of Ascariasis lumbricades [lumbricoides]." 41 (12), 724-725. 89

335-Archiv für Klinische Chirurgie.

*a. ADAM, E. & NANA, A., 1944. — "Betrachtungen über Lungenechinococcusperforation in der Pleurahöhle." 205, 475.

336-Archives Médico-Chirurgicales de l'Appareil Respiratoire.

a. DÉVÉ, F., 1944.—"L'échinococcose primitive hétérotopique de la plèvre." 15 (2), 77-88.

337-Archivos Argentinos de Enfermedades del Aparato Digestivo y de la Nutrición.

- *a. GOÑALONS, G. P. & ZANALDA, D. M., 1944.—" Parasitosis intestinal y reflejos alérgicos."
- 19, 65-71.
 GARRE, E. S., REYES WALKER, A., BERMAN, S. & SENEPART, J., 1944.—
 "Colecistitis por Ascaris lumbricoides." 19, 336-345.

338-Archivos de la Asociación para Evitar la Ceguera en México.

- *a. TORRES ESTRADA, A., 1944.—" Patogenia de la queratitis punteada de la oncocercosis."
- 2, 63-72. *b. SAENZ CANALES, J., 1944.—"El cuerpo vítreo en algunas localizaciones oculares del cisticerco." 2, 197-215.

339-Archivos Hospital Rosales.

*a. REYES, E., 1944.—" Dermatitis sistosomiásica en El Salvador." 35 (93), 3-5.
*b. BARRIENTOS, E., 1944.—" Comentario al trabajo sobre dermatitis producidas por cercariae del lago de Coatepeque." 35 (93), 6.

340-Archivos de Medicina Infantil.

a. SOTOLONGO, F. & ESCALANTE, L., 1944.—" Caso humano de Hymenolepis diminuta." 13 (4), 297-301.

341-Archivos de la Sociedad de Biología de Montevideo.

- a. FIANDRA, O. & MENDOZA, D., 1944.—"Sobre la localización de las larvas de triquina en el tejido muscular." 12 (1/2), 145-150.
- (341a) Fiandra & Mendoza show that the larva of Trichinella spiralis passes between the muscle fibres into their substance. Until they have actually penetrated a fibre there is no reaction. Only in heavy infestations does a disseminated toxic myositis develop.

342—Archivos de la Sociedad de Cirujanos de Hospital. Santiago de Chile.

*a. CEBALLOS, A., 1944.—" Tratamiento en un tiempo, de los quistes hidatídicos del pulmón, sin adherencias pleurales, técnica personal." 14, 353-355.
*b. RIOSECO G., E., 1944.—" La pielografia en las afecciones tumorales del riñón." 14, 380-386.
*c. DIAZ T., M., 1944.—" Cisticerco solitario del cuarto ventriculo." 14, 514-521.
*d. VARGAS ZALAZAR, R., 1944.—" El quiste hidatídico del riñón." 14, 608-612.

343-Archivos Uruguayos de Medicina, Cirugía y Especialidades.

*a. SUIFFET, W., 1944.—" Ruptura aislada de la adventicia hidática hepática con retención de la hidatoide íntegra." 25, 217-229.

344—Army Medical Department Bulletin. War Office.

a. ANON, 1944.—" Skin irritation from helminth larvae." No. 40, pp. 6-7.

(344a) Skin irritation due to Ancylostoma or Bilharzia larvae gives useful warning of infection. R.T.L.

345-Arquivos Brasileiros de Cirugia e Ortopedia.

*a. TAVARES, L., 1944.--" A eosinofilia sanguinea no tratamento da esquistosomiase mansonica." 12, 267-277.

346-Arquivos do Instituto de Biologia do Exército. Rio de Janeiro.

*a. SAMPAIO, J. M., 1944.—" Granulomas esquistossomóticos do apêndice." 5, 73-77.

347—Ars Medici.

a. KREIS, H. A., 1944.—"Parasitismus und seine Beziehungen zum Menschen." 34 (10),

348-Berliner und Münchener Tierärtliche Wochenschrift.

a. RASCHKE, O., 1944.—"Kopierstifte sind zur Bezifferung der Schweine für die Trichinenschau unbedenklich." 1944 (25/26), 205-206.

(348a) Raschke is satisfied as to the harmlessness of using violet copying pencils for numbering pig carcases in Trichina inspection. B.G.P.

349-Biológica, Chile.

a. NEGHME R., A., 1944.—" Epidemiología de la triquinosis." Fasc. 1, 127-140.

(349a) Neghme has examined the occurrence of trichinosis in Chile in rats, pigs and man. During 1940 to 1943, using the Bachman intradermal test, he recognized 148 cases while 5.2% of apparently healthy people developed a positive delayed reaction when tested. An examination of nearly 300 cadavers showed 12.5% infestation: none of these had been recognized as carriers during life. In Santiago, 5% of the rats carry the disease: the percentage is higher in Concepción, reaching 7.8%. The percentage of pigs with larvae varies from 0.1% in the north of the country to 6% in some small southern towns. P.A.C.

350-Biologisch Jaarboek.

 a. CONINCK, L. A. P. DE, 1944.—"Wetenschappelijke resultaten der studiereis van Profr. Dr. P. Van Oye op Ijsland. XVI. Les nématodes libres des eaux et des terres saumâtres." 11, 165-220.

(350a) de Coninck describes free-living nematodes obtained from 3 brackish sites on Iceland in collections made in 1938. Most of the worms are marine species but from one of the sites where there was vegetation growing on the firm mud, besides typically marine forms, the following nematodes were obtained: Eucephalobus paracornutus, Doryllium uniforme, Dorylaimus carteri. Aphelenchoides parietinus, Anguillulina pratensis and Cephalobus oxyuroides.

351-Blumen- und Pflanzenbau.

*a. BÖHMIG, F., 1944.—" Wurzelälchen auch an Gurken und Tomaten." 48, 148-149.

352-Boletim Biologico. Laboratorio de Parasitologia. Faculdade de Medicina de São Paulo.

*a. GREENWAY, D. F., 1944.—" La teniasis humana por Hymenolepis diminuta en la Argentina. Nueva observación y su limitación a la Provincia de Buenos Aires." 17, 199-210.

353-Boletin Médico del Hospital Infantil, Mexico.

*a. ROBLES, C., 1944.—" Un caso de cisticercosis múltiple del encéfalo con aracnoiditis del IV ventrículo en un niño de siete años." 1, 21-32.

*b. PRADO VERTIZ, A., 1944.—" Onchocercosis en un cardiópata infantil." 1, 41-43.
*c. MENA BRITO, M. A., 1944.—" Métodos de laboratorio para la búsqueda de Onchocerca

volvulus." 1, 44-46.

354—Boletín de la Sociedad Cubana de Pediatría.

a. EXPÓSITO, L. & FERIA, A. DE, 1944.—" Tratamiento del parasitismo sin purgantes." 16 (12), 489-499.

(354a) Expósito & de Feria have successfully treated children for intestinal parasites omitting a purgative. The patient is previously fed a diet restricted largely to carbohydrates. Their results have been as satisfactory as those which follow treatment with vermifuge and purgative, and the alteration to the rhythm of peristalsis and the mucosal irritation are absent. It is held that purgation actually increases the likelihood of toxic absorption. P.A.C.

355-Boletines y Trabajos, Academia Argentina de Cirugía.

*a. IVANISSEVICH, O. & TAIANA, J. A., 1944.—" Falsas recidivas de los quistes hidatídicos

del pulmón." 28, 48-54.

*b. BREA, M. M. & MARTÍNEZ, F., 1944.—" Quiste hidatídico del mediastino." 28, 342-349.

*c. CALCAGNO, B. N., 1944.—" Equinococosis ósea. Terapéutica biológica." 28, 649-664.

356-Boletines y Trabajos, Sociedad Argentina de Cirujanos.

*a. RIVAS, C. I., 1944.—"Hidatidosis y tuberculosis pulmonar." 5, 121-335.

*b. LATIENDA, R. I. & CARPANELLI, J. B., 1944.—"Apendicitis y Oxyurus." 5, 330-342.

*c. LAVISSE, J., 1944.—"Tumores de la cara posteroinferior del hígado. Su diagnóstico radiológico." 5, 454-462.

*d. GRINBLAT, S., 1944.—"Estudio sobre el valor de la reacción de Casoni complementada con la prueba da Michailow para el diagnóstico de la equipocaccia." 5, 220, 22.

la prueba de Michailow para el diagnóstico de la equinococosis." 5, 858-884.

(356b) This paper appears also in Rev. Asoc. Med. Argent., 1944, 58 (539), 627-631.

(356d) This paper appears also in Rev. Asoc. Med. Argent., 1945, 59 (549/550), 17-26. [For abstract see Helm. Abs., Vol. XIV, No. 50a.]

357-Boletines y Trabajos, Sociedad de Cirugía de Córdoba.

*a. URRUTIA, J. M. & FERRARIS, L. V., 1944.—" Distomiasis del hepatocoledoco; importancia de la colangiografia operatoria." 5, 219-232.

358-Bollettino della Società Italiana di Medicina e Igiene Tropicale (Sezione Eritrea).

a. SOFIA, F. & CIARAVINO, E., 1944.—"Inchiesta coprologica sui nativi dell'Eritrea." 4 (5/6), 785-802. [English summary p. 802.]
b. MARIANI-TOSATTI, G., 1944.—"Bilharziosi intestinale da Sch. mansoni in Eritrea. Descrizioni clinico-anatomo-istologiche." 4 (5/6), 803-813.
c. SORICELLI, F., 1944.—"Su alcune manifestazioni radiologiche dell'apparato digerente nella

. teniasi." 4 (5/6), 903-912. [English summary p. 911.]

(358a) The faeces of 700 inhabitants of Eritrea showed the following helminth infections: Bilharzia 0.86%, Taenia 8.28%, Hymenolepis 4.85%, Ascaris 19.14%, Oxyuris 3.43%, hookworm 18.86%, Trichuris 29.57% and Strongyloides embryos occurred in 9.14%. The authors draw attention to the social importance of intestinal parasitism among the natives where the relations between Europeans and Eritreans are close.

(358b) Three cases of infection with Schistosoma mansoni are recorded from Eritrea. The clinical symptoms and post-mortem observations on the third case are given. The molluscan carrier is said to be Planorbis boissyi var. asmara. R.T.L.

359—Brasil-Medico.

a. CANÇADO, J. R., 1944.—"Propriedades anti-helmíntica e anticoagulante do latex de Jaracatiá dodecaphylla (Vell.) A. DC." 58 (45/46), 415-417.

360-Bulletin de l'Académie Vétérinaire de France.

a. DESCHIENS, R., 1944.—"Les propriétés parasiticides des dérivés triphénylméthaniques dans les helminthiases des animaux domestiques." 17 (4), 111-116.
b. GUILHON, J. & PRIOUZEAU, M., 1944.—"Essais de traitement des parasitoses du tube digestif des équidés et des bovidés par la thiodiphénylamine." 17 (7), 202-217.
c. URBAIN, A. & NOUVEL, J., 1944.—"Petite enzootie de strongyloïdose observée sur des circus propriétés de la control de

singes supérieurs: gibbons à favoris blancs (Hylobates concolor leucogenis Ogilby) et chimpanzés (Pan troglodytes (L.))." 17 (11), 337-341.

(360b) Guilhon & Priouzeau recommend phenothiazine as a safe anthelmintic against nematodes in bovines and equines. In light infestations they give 5 cg. per Kg. on two successive mornings, fasting, and for heavy infestations 20 cg. per Kg. Higher doses do not give better results. These conclusions are based on 202 controlled observations of horses and 112 of cattle, which include cases of complete elimination even of ascarids. Mares in foal and cows in calf can safely be treated.

(360c) Urbain & Nouvel describe the clinical symptoms and pathological changes occurring in gibbons and chimpanzees infested with Strongyloides stercoralis. Death supervened in each case. They point out that these primates ought to be considered as natural hosts of the nematode and that they may play a part in the dissemination of the parasite to human hosts in Indo-China, Sierra Leone and Liberia where they normally live.

361-Bulletin de la Chambre d'Agriculture. Casablanca.

*a. VELU, H. & ZOTTNER, G., 1944.—"Les pyrethrines et la prophylaxie de la bronchite vermineuse du mouton." 15 (164), 17-20.
*b. CORDIER, 1944.—"Les fleaux du mouton; maladies parasitaires—maladies de disette."

15 (168), 5-15.

362-Bulletin of the Department of Agriculture, California.

*a. ROSENBERGER, A. C., 1944.—" Gastro-intestinal roundworms in cattle." 33 (3), 195-197.

363—Bulletin. Idaho Agricultural Experiment Station.

a. KENKNIGHT, G., 1944.—"Pea diseases in Idaho." No. 253, 13 pp.

(363a) In a general account of diseases of peas in Idaho, a brief description is given of root-knot caused by Heterodera marioni. It is recommended that measures should be taken to avoid introducing the nematode to uninfested land, and, if the disease appears, only immune crops should be grown for at least 4 years. M.T.F.

364—Bulletin et Mémoires de la Société Médicale des Hôpitaux de Paris.

a. LAEDERICH, BRUMPT, L., TEYSSIER & GOSSET, J., 1944.—" Un cas d'érythrémie traité par ankylostomose provoquée." 3e Série, 60 (11/12), 122-124.
b. LELONG, M., LAVIER, G. & JOSEPH, R., 1944.—" Un cas d'abcès ascaridien du foie

chez un nourrisson (présentation de pièce)." 3e Série, 60 (15/18), 228-230.

365—Bulletin. Ministry of Agriculture, Egypt. Technical and Scientific Service.

*a. BZZAT, M. A. E., 1944.—"The occurrence of Multiceps gaigeri Hall, 1916 in subcutaneous connective tissue of Sudanese sheep and Nubian ibex." No. 238.

366—Bulletin de l'Office International d'Hygiène Publique.

a. LE GALL, R., 1944.—" Les bilharzioses en Afrique Occidentale Française au Togo et à Madagascar de 1939 à 1941." 36 (3/4), 116-126.

(366a) Le Gall says that, although human schistosomiasis accounted for only 0.2% of general morbidity in French West Africa, it was actually far commoner than this would suggest, as examinations of faeces and urine proved. S. mansoni was found in 0.77% of 57,000 faecal samples, and S. haematobium in 23·13% of over 6,000 urine samples. Individual colonies showed wide variation: S. mansoni 3·23% in French Guinea and none in Mauretania; S. haematobium 54.44% in Niger and 9.45% in Dahomey. In Madagascar S. haematobium predominated on the west coast and S. mansoni on the east; over the whole island the respective percentages of infested samples were 4.63% and 1.44%. B.G.P.

367-Bulletin de la Société Neuchâteloise des Sciences Naturelles.

a. BAER, J. G., 1944.—"Les trématodes parasites de la musaraigne d'eau Neomys fodiens (Schreb.)." Année 1943, 68, 33-84.
b. FUHRMANN, O. & BAER, J. G., 1944.—"Mission biologique Sagan-Omo (Ethiopie méridionale), 1939 dirigée par le professeur Eduardo Zavattari. Cestodes." Année 1943, 68, 113-140.

P.A.C.

(367a) In his study of some trematode parasites of Neomys fodiens, Baer has made a number of taxonomic revisions in the groups to which they belong. In Plagiorchidae, Dolichosaccus Johnstone is considered separate from Opisthioglyphe Looss; the generic constitution is discussed and O. megastomus n.sp. and its range of variations described, these approach O. locellus Kossack, and probably include Distomum instabile Duj.—the latter name being suppressed. Metacercariae found in the hepatic caeca of Gammarus pulex, and excysting only in the fresh intestinal mucus of Neomys fodiens, are thought to be O. megastomus. The concept of Opisthorchidae is restricted and its 21 genera are reduced to 8: a definition and a key to the following genera are given: Opisthorchis, Microtrema, Amphimerus, Parametorchis, Metorchis, Pseudamphistomum, Clonorchis and Allometorchis n.g., the last including Parametorchis intermedius (type), P. canadensis and P. manitobensis. The genus Metorchis is revised: M. revilliodi from N. fodiens is redescribed and the wide variability of this and other species of the family is noted. Pachytrematinae Railliet, is raised to family rank (including Pachytrema, Diasia and Pseudamphimerus), and placed near to Ratziidae n.fam (including Ratzia and Cyclorchis) in Opisthorchoidea. Cephalotrema n.g. (Lecithodendriidae: Pleurogenetinae), is defined with C. minutus n.sp. as type (from N. fodiens). The family Microphallidae is redefined in a restricted sense and separated from those genera, hitherto included, which possess a cirrus pouch (Maritrematidae n.fam.). Microphallidae s.s., lacking this, includes Levinseniella and Microphallus (syn. Spelotrema, Monocaecum, Spelophallus); Microphallus gracilis n.sp. is described and a key is given to 13 species. Maritrematidae n.fam. includes Maritrema, Gynaecocotyla (syn. Cornucopula), Pseudospelotrema (syn. Maritreminoides) and Microphalloides. In Troglotrematidae, the variations and relations of the genitalia in Nephrotrema truncatum are described from new material from N. fodiens. References to 90 papers are cited in this long work.

(367b) Fuhrmann & Baer describe the cestodes collected during an expedition to equatorial Abyssinia in 1939. Mammals yielded 13 species, none of which was new. Birds yielded 33 species, including 5 unidentified species of Hymenolepis and 4 new forms. Paronia zavattarii n.sp., a parasite of Colius striatus erlangeri, though present only in fragments of strobila, can be readily distinguished by its uterine characters. Choanotaenia riccii n.sp. was obtained from Sphenorhynchus abdimii, the first time this genus has been recorded from the Ardeiformes. It can be recognised by the size of the hooks and by the structure of the cirrus sac. Anonchotaenia castellanii n.sp. was recovered from Eurocephalus rüppeli rüppeli. There is a strong muscular sphincter at the opening of the cirrus sac into the genital atrium unlike all other species of the genus. Raillietina (R.) fuhrmanni intermedia n. subsp., described from Oena capensis capensis, is created for a form with rostellar hooks measuring 12 to 14µ long. The hooks of the original species are twice as long. R. (R.) idiogenoides has segments which are indistinguishable from those of R. (R.) fuhrmanni but the hooks measure only 5.8μ long.

368—Campo. Buenos Aires.

*a. RIVEROS SOSA, H. R., 1944.—" Llagas de verano (habronemosis)." 28 (327), 37.

*b. CASÓS, G. A., 1944.—" Teniasis de los ovinos (lombrices grandes o lombrices solitarias)." 28 (334), 36-37, 41, 51.

369—Canadian Sheep Review.

*a. SWALES, W. E., 1944.—" Control of worm parasites." 1944, pp. 18-20.

370—Chemical and Engineering News.

a. WRIGHT, W. H., 1944.—"Wartime and public health need for antiparasitic agents in tropical diseases other than malaria." 22 (16), 1360-1365.
b. ANDERSON, H. H., 1944.—"Experimental methods for the evaluation of antiparasitic agents." 22 (16), 1365-1368.

c. BANKS, C. K., 1944.—"Organometallic compounds used as antiparasitic agents." 22 (16), 1368-1374 d. ADDINALL, C. R., 1944.—" Nonmetallic compounds used as antiparasitic agents against

tropical diseases other than malaria." 22 (16), 1374-1378.

371—Chinese Medical Journal. Shanghai.

a. HU, S. M. K., 1944.—" Studies on the susceptibility of Shanghai mosquitoes to experimental infection with *Microfilaria malayi* Brug. VII. *Culex fuscanus* Wiedemann." 62 (3), 255-259.

(371a) Confirming that *Culex fuscanus* is a possible intermediary for *Microfilaria malayi*, since of 68 experimentally fed 2 contained mature larvae and 14 dead encapsulated filariform larvae, Hu regards this mosquito as of little importance since it rarely bites man in nature.

B.G.P.

372-Circular. Kentucky Agricultural Experiment Station.

a. DIMOCK, W. W., 1944.—"Some parasitic diseases of sheep; prevention and control." No. 55, 4 pp.

No. 55, 4 pp. b. HULL, F. E. & DOLL, E. R., 1944.—" Diseases of sheep." No. 56, 32 pp.

373-Cirugía del Aparato Locomotor. Madrid.

a. OLIVARES, L., 1944.—" Quistes hidatídicos óseos." 1 (4), 291-295.

374—Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS.

a. VINNITZKY, I. M., 1944.—"A comparative study of the defensive reaction of the organism of various animal species to parenterally introduced living nematodes." 45 (4), 173–176.

b. SOLDATOVA, A. P., 1944.—"A contribution to the study of the development cycle in the cestode Mesocestoides lineatus (Goeze, 1782), parasitic of carnivorous mammals." 45 (7), 310–312.

(374a) Vinnitzky has studied the effects of introducing living ascarids into the peritoneal cavity of certain laboratory mammals. The parasites always die due largely to intoxication leading to exhaustion. One case of gastric perforation was observed. In the case of guineapigs, the ascarids were encysted and resorbed rather slowly. The immediate reaction is rapid in rabbits but phagocytosis is retarded later. In the case of carnivores there is no encystment of the parasites, which become lysed within the peritoneal cavity. Leucocytes actually penetrate the cuticle in carnivores and guinea-pigs but not in rabbits.

P.A.C.

(374b) Soldatova reports that oribatid mites may be the intermediate host of *Mesocestoides lineatus*. Mites collected from the litter of cages of carriers contained larvae resembling onchospheres of the cestode and feeding experiments produced similar larvae. Cysticercoids aged 125 days were not however fully formed.

P.A.C.

375—Comptes Rendus des Séances de la Société de Biologie. Paris.

 DESCHIENS, R. & BABLET, J., 1944.—"Recherches sur la toxicité des dérivés triphénylméthaniques anthelminthiques." 138 (21/22), 838-839.

(375a) Deschiens & Bablet have investigated the toxicity of basic fuchsin, crystal violet, gentian violet, malachite green, brilliant green and ethyl green, all of which have been used as anthelmintics. Brilliant green proved to be the most toxic, small doses proving fatal to mice and rabbits. All the substances produced changes in the excretory system ranging from simple congestion in the case of basic fuchsin to marked degeneration of the tubules, accompanied by a foetid diarrhoea in the case of brilliant green. Precipitation of albumen and some necrosis of the tubules was noticed in certain cases but there seemed to be no liver or blood changes.

P.A.C.

376—Cornell Extension Bulletin. New York State College of Agriculture.

a. BAKER, D. W. & WILLMAN, J. P., 1944.—"Controlling internal parasites of sheep." No. 407, 26 pp.

(376a) The relative immunity of the sheep to acute transmissible diseases accentuates the losses due to parasitism by helminths. This Bulletin outlines for the veterinarian recent information on the predisposing conditions, methods of prevention and medicinal treatment of sheep helminthiases. It is notable for the series of photographs illustrating the various species as seen with the naked eye. The subdivision of large sheep pastures into small temporary areas and the moving of sheep from one to another every two or three weeks is commended. Extra feeding should be provided during those summer periods when pasture is short and during the

winter months. All purchased sheep should be isolated and drenched for at least two weeks before being run with the flock. Salt mixtures containing tobacco and copper sulphate should not be fed owing to the risk of chronic poisoning but routine drenching is considered safe. The combined copper sulphate-nicotine and phenothiazine treatments supplement each other with tetrachlorethylene occasionally substituted especially after the weather becomes cool.

377-Cultura Médica. Rio de Janeiro.

*a. ALTINO, E. & BARROS COELHO, 1944.—" Um caso humano de facioliase hepática." 6, 78-85.

378-Deutsche Medizinische Wochenschrift.

a. SONNENSCHEIN, C., 1944.—"Behandlung bei Spulwurmbefall." 70 (9/10), 132-133.
b. MARKWORTH, 1944.—"Anatomische Befunde bei Trichinose." [Verhandlungsberichte

Königsberg, Verein für wissenschaftliche Heilkunde, 8.11.1943.] 70 (9/10), 141.

(378a) Sonnenschein briefly replies with a summary of recent methods to a query on the treatment of ascaridiasis.

(378b) This is a very brief account of a post-mortem made on a case of trichinosis 22 days after the first appearance of symptoms.

379-Deutsche Tierärztliche Wochenschrift. Tierärztliche Rundschau.

*a. ENDRIGKEIT, A., 1944.—"Versuche zur Wirkungssteigerung von Wurmmittein. Teil 1. Zur Abkürzung des Behandlungsverfahrens beim Allegan." 52/50 (23/24), 211-215.
*b. PAVLOV, P., 1944.—"Über das Vorkoramen von Cysticercus inermis, C. cellulosae und Trichinella spiralis in Bulgarien." 52/50 (23/24), 227-228; (27/28), 263.
c. ROSENBERGER, G., 1944.—"Phenothiazin gegen die Magenwurminvasion der Schafe."

52 50 (25/26), 229-231.

d. ROLLE, M., 1944.—"Anwendung von Wurmmitteln gegen Strongyliden beim Pferd." 52,50 (27/28), 248-249.
c. SCHMID, F., HOLLATZ, R., MÜSSIGGANG, E. & FIEDLER, H., 1944.—"Die.

SCHMID, F., HOLLATZ, R., MÜSSIGGANG, E. & FIEDLER, H., 1944.—"Die Wirkung von Wurmmitteln auf die verschiedenen Strongylidenarten des Pferdes. IX. Phenothiazin, X. Verminekrin, XI. Kachexid." 52/50 (35/36), 323-324.

GOHDE, G., 1944.—"Eleichterte Diagnose von Muskeltrichinen im Gewebe durch

Fluoreszenzmikroskopie." 52/50 (35/36), 329.
g. ENDRIGKEIT, A., 1944.—" Versuche zur Wirkungssteigerung von Wurmmitteln. II. Kombinationsversuche beim Allegan und CCl₄." 52/50 (39/40), 370–372.

(379b) Pavlov shows from slaughterhouse statistics that in Bulgaria, from 1937 to 1942, the incidence of Cysticercus bovis in cattle varied between 0.07% and 0.16%, with a much lower incidence in buffalo (0.002 to 0.01%). In pigs, C. cellutosae varied from 0.15% to 0.7%, and Trichinella from 0.02% to 0.11%.

(379c) Rosenberger has found phenothiazine satisfactory, at a dose of 1 gm. per Kg. body weight, in 154 sheep with haemonchosis. Eggs of Haemonchus were mostly reduced to negligible numbers 14 days after the single treatment, and even 5 very heavily infested sheep which required a second treatment showed no trace of toxic symptoms. Reduction in Nematodirus eggs was negligible.

(379d) Rolle has satisfactorily treated over 1,000 horses for strongylosis with a mixture of carbon tetrachloride and tetrachlorethylene, with no untoward effects other than a 24 hours' inappetence. The dose, varying from 30 c.c. of each drug for large horses to 20 c.c. CCl4 and 25 c.c. C2Cl4 for small, is given with 60 c.c. liquid paraffin by nasal sound, is followed immediately by 6 to 8 litres of warm water by the same route, and is followed after I hour by 0.15 [gm.?] pilocarpin in 10% aqueous solution subcutaneously. Elimination of worms occurs during the 2nd to 4th days after treatment. Allegan can be given by the same method, or intravenously. For ascarids the water is reduced to one half, and pilocarpin is replaced by arecolin, 0.03 [gm.?] in 5 c.c. water subcutaneously.

(379e) Schmid & co-workers continue their long series of tests of anthelmintics against Trichonema and the 3 species of Strongylus in horses [for previous tests see Helm. Abs., Vol. IX, (No. 268a), X (130b), XI (8e, 8h, 196a), XII (70a)]. (i) Phenothiazine, preferably recrystallized, in a single dose of 35 gm. mixed in the food gave in 3 weeks a 95% to 100% reduction in all strongyle eggs, without affecting ascarids. (ii) Verminekrin (Atarost) was tested in two forms: red-brown (arsenic with plant extracts) and blue (arsenic with aniline). Both strongly reduced the egg-count, but the blue form was more effective and more readily taken. (iii) Kachexid (Bengen), which had been previously used as a roborant with good effect in strongylosis cases, was shown to reduce strongyle eggs, but the differentiation of roborant from strictly anthelmintic effects is still under investigation. The tests with these 3 drugs are described in more detail in dissertations respectively by the 3 junior authors.

(379f) Gohde recommends the following preparation of tissues suspected of containing Trichinella larvae, in place of the usual bright-ground microscopic examination: thin pieces of tissue are washed in tap-water 5 minutes; 0.1% neutral red 5 minutes; brief washing; Ic% trisodium phosphate ½ to I minute; brief washing; dried in filter paper; compressed and examined in fluorescence microscope at from × 40 to × 80. Such a preparation shows fat a bright emerald green, muscle greyish brown, the Trichinella capsule an intense canary yellow, and the larva outlined in black. The yellow capsule in particular gives immediate differentiation from other muscle parasites. This method is claimed to be both more reliable and quicker.

(379g) Discussing the efficacy of anthelmintics from the aspect of permeability of helminth cuticle, Endrigkeit shows that most nematode cuticles are only slightly permeable to organic dye-stuffs in aqueous solution, and ascaris cuticle and the shell of strongyle eggs not at all. Pre-treatment with CCl₄, however, renders the cuticles highly permeable to such aqueous solutions. On this basis, he has tested a mixture of Allegan, given as tablets, with CCl₄ and charcoal to lessen its absorption from the intestine, in horses with strongylosis. Effective doses were 4 to 6 tablets of Allegan plus 6 to 15 gm. CCl₄ plus 10 gm. charcoal per 50 Kg. body weight. CCl₄ alone was toxic at effective doses [but the omission of Allegan does not appear to make much difference]:

380-Día Médico.

a. CERESETO, P. L., 1944.—" Estadística de la equinococosis en el Partido de Tandil." 16 (46),

1402-1404. b. ALONSO, L. M., 1944.—" Crecimiento y evolución del quiste hidatídico. Breves comentarios

clínico-terapéuticos de las principales localizaciones." 16 (52), 1599-1603. SOLARI, L. A., BAILA, A. E. & BORZONE, J. E., 1944.—"Coleperitoneo hidático." 16 (52), 1603-1606.

(380a) Cereseto gives data on the incidence of hydatid in man in the Tandil District of the Buenos Aires Province, based on records of the Ramón Santamarina Hospital going back to 1897. Of 33,000 patients since that date, 358 (1%) were hydatid cases, 75% of them hepatic. Before 1910 the incidence was below 0.5%, for the next 20 years about 1.3%, and since 1930 about 1.0%. Age incidence by decades shows that hydatid is commonest in the decade 20-30. 12.5% of cases terminated fatally. Some data on slaughter-house returns between 1938 and 1942 show that, of all cattle and sheep condemned, 39% were for hepatic and 18.5% for B.G.P. pulmonary hydatid.

381-Día Médico. Supplemento.

a. RIVAS, C. I., 1944.—"Diagnóstico y tratamiento de los quistes hidatídicos del pulmón." 1 (14), 97-104.

382-Fauna. São Paulo.

*a. MELO, M. J., 1944.—" Notas sobre a ancilostomose dos cães." 3 (8), 31.

383-Gaceta Médica Española.

a. NOGUERA TOLEDO, J., BENAVENTE CORRAL, J. & UYA BESO, F., 1944.— "Contribución al estudio de las formas anatomoclínicas de la hidatidosis pulmonar." 18 (11), 489-496.

384-Gaceta Médica. Lima.

*a. GLIMBLAT, S., 1944.—" Tratamiento biológico de la equinococosis por el procedimiento de Calcagno." 1, 61-62.

*b. LASTRES, J. B., 1944.—"Psicosis de Korsakoff en el curso de una cisticercosis cerebral." 1, 67-68.

385-Gaceta Veterinaria. Buenos Aires.

a. GROSSO, A. M., PRIETO, C. & STROBINO, L. E., 1944.—"Singamosis." 6 (29),

(385a) Syngamus trachea has been found in Paroaria coronata, Trinchopicus cactorum, Rhynchotus rufescens and Nothoprocta pletandi in the Zoological Gardens in Buenos Aires. This is a new geographical record, for the parasite has not previously been found in either domestic P.A.C. or wild birds in the country.

386—Hahnemannian Monthly. Philadelphia.

*a. FAVORITE, G. O. & HORNEFF, J. A., 1944.—" Cionorchis sinensis infestation of liver." 79, 292-297.

387-Hawaii Medical Journal.

a. LARSEN, N. P., YOUNG, C. T. & MASTERS, A. M., 1944.—"Tropical disease dangers in Hawaii." .4 (1), 9-12.

388-Hoja Tisiológica. Montevideo.

*a. GINELLA, H. & RODRÍGUEZ, A., 1944.—" Un caso de hidatidosis costal con pseudoabsceso osifluente." 4, 104-109.

389-Hospital. Rio de Janeiro.

*a. SANTOS, C., 1944.—"Intoxicação pelo anti-helmíntico tionol." 25, 830.

*b. SANTOS, C., 1944.—"Quilúria filariana." 26, 651-655.

c. MEIRA, J. A. & RAMOS, JR., J., 1944.—"Considerações sôbre o electrocardigranta na esquistosomiase mansoni. Contribuição para o estudo da miocardize esquistosomótica. Concomitància de forma cardíaca de molestia de Chagas com esquissosomiase mansorii avançada no mesmo doente." 26 (5), 717-746. [English summary pp. 743-744.]
*d. MARTINI, W., 1944.—"Estudo clínico da parasitose biliar (novos casos)." 26, 985-1006.

(389c) There are two clinico-pathological types of myocarditis associated with infections with Schistosoma mansoni. The commount type is call confused with Fiedler's myocarditis. The other type, characterized by schistoscare granuloina in the myocardium, is exceptionally rare. The diagnosis of schistosome myocarditis is difficult where Chagas' disease is also endemic.

R.T.L.

390-Indian Journal of Veterinary Science and Animal Husbandry.

a. KAURA, R. L., 1944.—" Deterioration of cattle in certain parts of India and its probable causes with some practical suggestions to overcome them." 14 (2), 132-145.
b. QURASHI, S. H., 1944.—" Some observations on Amoebotaenia sphenoides from poultry."

14 (3), 165-166.

MOHAN, R. N. & MUKERJI, A., 1944.—" Trichuris vulpis in dogs in India." 14 (3), 166-167.

(390a) Kaura considers the various factors causing deterioration of cattle in India. These include the low nutritive value of pastures, mineral deficiencies, and helminth and protozoai infections. The literature published elsewhere which bears on the Indian problem is reviewed.

(390b) Examination of Amoebotaenia sphenoides from Indian fowls has shown that the worm may reach a length of 4 mm. and consist of as many as 30 segments. There may be up to 12 testes in each segment.

(390c) Mohan & Mukerii describe a case of Trichuris vulpis in a dog in Bengal. This parasite is not common in indigenous dogs: the present case was imported from Tennessee.

391-Journal of the Association of Official Agricultural Chemists.

a. STEWART, V. E., 1944.—"Report on phenothiazine." 27 (3), 343-346.

(391a) Stewart's paper is not helminthological but is concerned solely with the chemical assay of samples of phenothiazine powder and tablets; he recommends an electrophotometric method of measuring the colour produced by treating the sample with bromine water, but even this method has inaccuracies and requires further study. B.G.P.

392-Journal of the Department of Agriculture. South Australia.

a. MITTON, R. L., 1944.—"The use of phenothiazine for worms in sheep." 47 (11), 482-483.

(392a) Mitton gives brief directions for drenching sheep with phenothiazine by means of a non-automatic drenching pistol at the rate of 24 sheep or 48 lambs per lb. of phenothiazine (mixed with 16 fl. oz. water), the cost working out at 4 d. per adult sheep.

393-Journal of the Department of Agriculture. Victoria.

a. SHEW, W. D., 1944.—"Liver fluke disease." 42 (7), 299-302.
b. MOUNTJOY, S. A., 1944.—"Worms in sheep." 42 (8), 343-348.

(393a) In a popular article on fluke disease in sheep in Australia, Shew stresses the fact that the disease can be prevented and eliminated by attacking the snail vector. This can be done by systematic use of copper sulphate, spreading the substance mixed with sand on infected pastures. Special attention is given to swampy areas. Adults can be removed from the bile ducts by means of carbon tetrachloride.

(393b) In an article for farmers Mountjoy mentions briefly the chief helminth parasites of sheep in Victoria, their symptoms and treatment and methods of preventing infestation. This is a reprint of a paper which appeared in the same journal in 1940, except that a note on phenothiazine has been added.]

394—Journal of the Royal Egyptian Medical Association.

*a. KHALIL, M., HALAWANI, A., NOR-EL-DIN, G. & AWNI, A., 1944.—"On stibophen and its value in mass treatment of schistosomiasis." 27 (6), 167-187.
*b. ABDALLA, A., 1944.—"Avitaminosis B. in ancylostoma anaemia." 27 (8), 290-293.
*c. HALAWANI, A., NOR-EL-DIN, G. & SHAKER, M., 1944.—"Investigation of localised epidemic of acute hookworm disease." 27 (8), 294-302.
*d. WWIV A. Y. WILLY (10) Operation in the content of th

*d. AWNY, A. Y., 1944.—"On anaemia in bilharzial curhosis with splenomegaly." 27 (8), 303-314.

395—Journal of the Royal Horticultural Society.

a. WOOD, J., 1944.—" Hot water treatment of narcissus bulbs. Experiments on factors influencing the susceptibility of the bulbs to injury." 69 (10), 298-304.

(395a) Wood gives an account of 10 years' experiments on the influence which the environmental conditions, prior to and after hot water treatment, have on narcissus bulbs. The standard treatment of 3 hours in water at 110°F. for the control of the bulb eelworm, Anguillulina dipsaci, is referred to throughout and it is shown that the temperature at which bulbs are stored after lifting and for the few weeks before treatment has a marked influence on the subsequent effect of hot water treatment. Cool storage prior to treatment, at 48°F., facilitates early forcing but increases susceptibility to injury whereas storage under warm conditions, at 80°F., while it somewhat retards flowering, decreases susceptibility to injury from hot water treatment. Cool storage after treatment may severely injure the bulbs.

396—Journal of Thoracic Surgery.

a. DAVIDSON, L. R., 1944.—"Hydatid cysts of the lung." 13 (6), 471-512.

397—Journal of Urology.

a. McMAHON, S., 1944.—"Tumors of the ureter." 51 (6), 616-622.

398-Journal of Wildlife Management.

a. SMITH, R. H. & CHEATUM, E. L., 1944.—" Role of ticks in decline of an insular cottontail

population." 8 (4), 311-317.

b. DOMAN, E. R. & RASMUSSEN, D. I., 1944.—" Supplemental winter feeding of mule deer in northern Utah." 8 (4), 317-338.

(398a) In their paper on ticks, Smith & Cheatum give the results of autopsies on 33 cottontails (Sylvilagus floridanus) from Fishers Island, New York, in which Hasstilesia tricolor was found in I, Cittotaenia sp. in 10, Cysticercus pisiformis in 11, Obeliscoides cuniculi in 20, Dermatoxys veligera in 22, and Trichostrongylus calcaratus in 11.

(398b) Dictyocaulus viviparus and Cysticercus tenuicollis are commonly found in mule deer, but the extensive losses which have occurred in Utah (up to 20% in winter) are ascribed by Doman & Rasmussen to malnutrition.

399-Kolkhoznoe Proizvodstvo.

a. GNEDINA, M., 1944.—[Dictyocaulus in sheep and calves.] No. 4, pp. 28-29. [In Russian.]

400-Lantmannen.

a. HOLMBERG, C., 1944.—"Potatisålen och dess spridning under de senaste tjugu åren." 28 (16), 371-373.

(400a) The symptoms of potato eelworm disease are described and its spread in Sweden during the past twenty years is outlined. It is recommended that potatoes should not be cultivated on the same ground year after year. M.T.F.

401-Laval Médical.

*a. MARCOUX, H., 1944.—"Le diagnostic direct de quelques parasitoses intestinales." 9, 334-341.

402—Leaflet. Ministry of Agriculture, Northern Ireland.

a. ANON, 1944.—" Gapes in chickens." No. 52, 4 pp.

403-Levende Natuur, Amsterdam,

a. BARKMAN, J. J., 1944.--" Over enige vondsten van nematoden-gallen op Bladmossen." 48 (11), 137-139.

(403a) Barkman gives an illustrated description of terminal shoot galis caused by nematodes on the following mosses collected in Holland namely, Leptodictyum riparium (L.) Warnst. f. tenuis Jur., Hypnum cupressiforme L. var. lacunosum Brid., and Rhacomintrium canescens (Weis.) Brid. In no case is the parasite identified but it would seem from the drawings illustrating gall-formation on Leptodictyum, where there is a figure of a female worm, that this is probably some species of Anguillulina. T.G.

404—Lyon Médical.

*a. MORENAS, L., FUMOUX, H. & VACHERON, C., 1944.—"Une nouvelle épidémie familiale de distomatose à Fasciola hepatica, dans le Roannais." 171, 45-51.

*b. MORENAS, L., 1944.—"Le diagnostic biologique de la distomatose hépatique : essai de curi et d'intradermoréactions." 171, 51-56.

405-M.S.C. Veterinarian. Michigan State College.

a. HAWKINS, P. A. & THORP, Jr., F., 1944.—"Parasitic conditions of cattle." 5 (1), 16, 36.

(405a) Internal parasitism should always be eliminated before diagnosing chronic nonparasitic diseases in cattle. Anaemia is characteristic of heavy Ostertagia infection and diarrhoea is more often associated with stomach-worms and trichostrongyles. Vitamin C deficiency is often confused with parasitism. Gastro-intestinal parasitism should not be overlooked in chronic pneumonia apart from verminous pneumonia. R.T.L.

406-Maanedsskrift for Dyrlaeger.

a. BENDIXEN, H. C., 1944.—"Om Fentiazinets Anvendelse i veterinaer Praksis." 56 (17),

(406a) Bendixen contributes a report from Denmark on experimental work in the treatment of sheep infected with strongylosis of the stomach and intestine with phenothiazine ("Fentiazin"). The drug was given as a "bolus" or capsule of up to 10 gm. for adult sheep and 5 gm. to lambs. A special apparatus for the administration of boli is figured. A graph shows the pronounced effect of treatment measured by the number of strongyle ova per gm. of faeces compared with untreated controls. Another graph shows the increase in weight in treated sheep as compared with untreated controls, the dose given being I gm. phenothiazine per Kg. body weight. Two further graphs compare the egg counts and increase in weight of sheep receiving 0.5 gm. per Kg. body weight, 1.0 gm. per Kg. body weight, and no treatment, respectively, again showing a slightly greater fall in the egg count and increase in weight in the more heavily treated animals. I gm. doses of phenothiazine per Kg. body weight also had a favourable effect on enteritis in lambs and arrested diarrhoea. The experimental treatment was then extended to heavily infected sheep in a specific area in the field, again at a dosage of 0.5 gm. per Kg. body weight. Improvement in condition was noted 5 months afterwards. Phenothiazine was also tried on cattle infected with gastric strongylosis and suffering from enteritis and wasting, with excellent results. The doses given were as for sheep. Up to 10 gm. can be given daily to cattle with safety. The possibility of phenothiazine treatment of horses with strongylosis is suggested but with some reserve; there are reports of toxic action. However, the writer quotes one case of reduction of egg counts and improvement of condition. [Throughout the paper the nonspecific term "Strongylosis" is employed; the only species of worms mentioned by name are Trichostrongylus axei and Ostertagia ostertagi.]

407—Médecine Tropicale, Marseilles.

a. ROGER, H., 1944.—"Les kystes hydatiques du cerveau." 4 (2), 89-110.
b. CLERC, S., 1944.—"Rapport sur deux observations de kyste hydatique du rein." 4 (2),

c. FARINAUD, M. E., 1944.—" Une médication nouvelle : le violet de gentiane et les dérivés du triphénylméthane dans le traitement de l'oxyurose." 4 (4), 305-311.

(407c) Farinaud gives an account of the use of gentian violet or other triphenylmethane derivatives as anthelmintics. The differential effects of the different derivatives are dealt with in detail as well as the method of administration. The author concludes that the inconvenience of having to administer the drug in the form of capsules is more than compensated for by their anthelmintic action coupled with their low toxicity. D.F.

408-Médica. Matanzas.

*a. HERNÁNDEZ, A. R. & ENTRALGO, A., 1944.—"Primeras observaciones del Inermicapsifer cubensis en nuestro medio (Santa Clara)." 3, 123-127.

409-Medical Bulletin of the North African Theater of Operations.

*a. SHAW, J. L. & RANSMEIER, J. C., 1944.—"Vesical schistosomiasis; case report." 1 (5), 11-12.

410-Medical Press and Circular.

a. CAWSTON, F. G., 1944.—"Bilharzia disease." 212 (26), 411-413.

411-Medicina. Buenos Aires.

*2. GRAÑA, A., 1944.—" Eosinofilias producidas en pacientes con quiste hidatídico, inyectados con líquido hidático." 4, 290-296.

412-Medicina. Madrid.

*a. MANUEL Y PINIÉS, L., 1944.—" La miocarditis de la triquinosis." 12 (2), 738-748.

413-Medicina Clínica. Barcelona.

*a. PIULACHS, P., 1944.—"El granuloma ascaridiano." 3, 385-387.

*b. GALLART-ESQUERDO, A., 1944.—"Valor de la exploración radiológica directa en la oclusión intestinal por Ascaris. Descripción de un nuevo síntoma." 3, 393–395.

414-Medicina Colonial, Madrid.

*a. PIULACHS, P. & ALVIRA MALLEN, M., 1944.—"La vómica en el quiste hidatídico de pulmón." 4, 289-331.

415-Medicina Españofa.

a. SÁNCHEZ CÓZAR, J., 1944.—" Problemas clínicos que plantea la patología del equinococo." 12 (71), 543-558.

416-Mémoires de l'Institut Royal Colonial Belge. Section des Sciences Naturelles et Médicales.

a. SCHWETZ, J. & DARTEVELLE, E., 1944.—"Recherches sur les mollusques de la Bordure Orientale du Congo et sur la bilharziose intestinales de la Plaine de Kasenyi, Lac Albert." 14 (2), 77 pp.

417-Memorias do Instituto Oswaldo Cruz.

a. CRUZ, W. O. & PIMENTA DE MELLO, R., 1944.—"Eliminação urinaria do cloreto de sodio na anemia ancilostomotica." 41 (2), 223-231.
b. FIGUEIREDO MAGALHÃES, B. & DIAS, C. B., 1944.—"Esquistossomose de Manson—

estudos." 41 (3), 363-446.

(417a) Cruz & Pimenta de Mello have noticed that in hookworm anaemia cases the amount of sodium chloride excreted in the urine is much reduced but it can be brought back to normal by the administration of iron even though the hookworm is not eliminated.

(417b) Magalhães & Dias consider the question of the origin of Schistosomiasis mansoni in Brazil and publish a map illustrating its occurrence in the State of Minas Gerais. They have also studied a number of toxic conditions which have arisen following antimony therady, myocardial changes being revealed by an electocardiograph. Myocardial symptoms are ascribed to a vasodilatatory action of antimony. The authors append 175 references dealing with schistosomiasis in Brazil. P.A.C.

418—Monografias do Instituto Oswaldo Cruz.

a. TRAVASSOS, L., 1944.-"Revisão da família Dicrocoeliidae Odhner, 1910." No. 2, vii

(418a) In this splendid monograph illustrated by 124 plates Travassos reviews the literature, host distribution and systematics of the genera and species of Dicrocoeliidae Odhner 1910. This family is divided into 3 subfamilies: Dicrocoellinae, Infidinae n. subfam, and Mesocoeliinae. The Dicrocoeliinae comprise Dicrocoelium, Metadelphis n.g., Eurytrema, Platynosomum, Conspicuum, Canaania n.g., Concinnum, Lyperosomum, Zonorchis n.g., Proacetabulorchis, Lutztrema, Orthorchis n.g., Olssoniella n.g., Brachydistomum n.g., Dictyonograptus, Brodenia, Athesmia, Pseudathesmia, Paradistomum, Paradistomoides n.g. and Euparadistomum. The Infidinae n.subfam. contains only Infidum. The new species recorded are Metadelphis evandroi, Canaania obesa, Zonorchis confusum and Z. japuhybae. The subfamily Mesocoeliinae containing Mesocoelium and Pintneria is omitted from the descriptive part of the work. R.T.L.

419-Montana Wool Grower.

*a. MARSH, H., 1944.—"Phenothiazine treatment." 18 (12), 9, 18.

420-Münchener Medizinische Wochenschrift.

a. SCHÜFFNER, W., 1944.—" Die Bedeutung der Staubinfektion für die Oxyuriasis. Richtlinien der Therapie und Prophylaxe." 91 (31/32), 411-414.
b. OXENIUS, K., 1944.—" Gegen den Juckreiz durch Fadenwürmer." 91 (31/32), 414.
c. GAASE, A., 1944.—" Ueber die Verwendbarkeit der Komplementbindungsreaktion zum Nachweis der Trichinose." 91 (33/34), 440-441.

(420a) Schüffner discusses the treatment and control of Enterobius infections in man, laying great stress on the importance of dust as a source of infection. He has experimentally shown that infection can occur by the inhalation of eggs, having secured 6 positives in 8 trials. Dust is important in closets and especially between bedclothes. He recommends small enemas (30 to 50 c.c.) on retiring, to clear the worms from the rectum, the wearing of close-fitting bathing drawers at night, and the careful wasning of hands and buttocks each morning. On the other hand he deprecates such measures as the wholesale treatment of non-clinical carriers and the daily sterilization of bedding and underclothes, as conducive to "threadworm neurosis". With careful treatment and prophylaxis an infection usually disappears within 7 weeks.

(420b) Oxenius has again recommended "Anaesthesin" against the pruritus due to threadworm [see Helm. Abs., Vol. III, No. 238a]. This time he suggests making a tampon by smearing a narrow plug of cotton wool with Anaesthesin ointment, dipping it in pure Anaesthesin powder, and inserting it in the anus overnight.

(420c) Gaase has investigated the value of the complement fixation test for trichinosis during an outbreak which occurred in Germany in 1943. The amount of serum available was not sufficient for a series of tests but he has evidence that the test is valuable at an early stage of the disease, even when the infestations are only light ones, for in 3 subjects positive results were obtained as early as the second day. The amount of fixation that occurred did not seem to be correlated with the degree of infestation: neither was the degree of eosinophilia. He suggests that as no meat inspection measures of pigs gave any indication of disease in this area, it would be worth while to examine the pigs by means of complement fixation so that light infestations among swine could be weeded out before the meat passed into the market. P.A.C.

421-Nassau County Farm and Home Bureau News:

*a. CHITWOOD, B. G., CLEMENT, R. L. & GORDON, F. M., 1944.—" Progress report on the status of the golden nematode of potatoes in Nassau County, N.Y." 30 (2), 1, 3.

422-Naturwissenschaften. Berlin.

a. HARNISCH, O., 1944.—" Ist das Leben im Schlamm eine "Vorschule" für endoparasitäres Leben in Hohlräumen des Körpers höherer Tiere?" 32 (5/13), 96–99.

423—Natuurwetenschappelijk Tijdschrift.

*a. VAN GREMBERGEN, G. & PENNOIT-DE COOMAN, E., 1944.—"Experimenteele gegevens over het stikstofmetabolisme der plathelminthen." 26 (3), 91-97.

424—Nederlandsch Tijdschrift voor Geneeskunde.

a. BIJLMER, J., 1944.—"Een uitzonderlijk geval van oxyuriasis van den darmwand." 88 (1/2), 24-26.

(424a) Bijlmer reports on a case of a 46-year-old man who died after 4 days in hospital in Rotterdam, during which time he passed daily 10 to 20 thin stools mixed with blood. Serological and bacteriological tests for typhus, paratyphoid A and B, and dysentery were negative. The pathological diagnosis was "acute ulcerous exacerbation of a chronic enterocolitis throughout the colon and rectum, and some ulcerations in the ileum, caused by oxyuriasis". One 4 sq. cm. piece of the rectum contained over 80 worms in aggregation in the submucosa and deeper, the proportion of males to females being 5:1. From a number of such pieces examined it was estimated that there were roughly 10,000 worms in the rectum and colon. All the worms were

said to be underdeveloped, especially the females, though the males showed the spiculum. On the whole the tissue surrounding the worms showed no reaction. The author concludes that the worms (Enterobius vermicularis) probably penetrated the already gangrenous ulcerated intestine during the life of the patient rather than their having been the cause of the ulcerations.

425-New England Journal of Medicine.

a. WORTHEN, T. W. & JENOVESE, J. F., 1944.—" Echinococcal disease: a report of two cases." 231 (7), 260-261.

426-New Orleans Medical and Surgical Journal.

a. MILLER, A., 1944.—"The distribution and epidemiology of important tropical diseases of the war areas." 97 (3), 93–97.
b. FAUST, E. C., 1944.—"Filariasis and schisto[so]miasis." 97 (3), 115–120.

(426a) This contribution to a symposium on tropical medicine includes a brief outline of the more important facts concerning filariasis and schistosomiasis. R.T.L.

(426b) Faust contributes to a symposium on tropical medicine a succinct account of the aetiology, pathogenesis, diagnosis, prognosis and prevention of filariasis and schistosomiasis.

R.T.L.

427-Nordisk Medicin.

a. BONSDORFF, B. VON, 1944.—"Värmestabiliseringen av sänkningsreaktionen vid perniciös maskanemi." 22 (21), 939–940. [German summary p. 940.]

(427a) Using a Berlin technique, the heat stabilization of the sedimentation rate was studied in 22 cases of pernicious "worm" anaemia. The stabilization figure was generally somewhat low, as in cases of cryptogenetic pernicious anaemia. There were, however, a few cases with a normal stabilization figure as occurs occasionally in cryptogenetic pernicious anaemia. The lowered heat stabilization of the sedimentation rate in pernicious anaemia is theoretically of some value, but the Berlin test hardly seems to have much significance in differential diagnosis. R.T.L.

428-North Western Naturalist.

a. WILLIAMSON, K., 1944.—"The folk-lore of the sheep liver-fluke." 19 (4), 300-301.

(428a) According to Williamson liver fluke in sheep is common in the Faeroes, the local name of the disease implicating pondweeds in its cause (probably a species of *Potamogeton*). Similarly, the Marsh Pennywort (Hydrocotyle vulgaris) is blamed in the Isle of Man. He has not yet found Limnaea truncatula in the islands. B.G.P.

429—Northwest Medicine.

a. HAVILAND, J. W., 1944.—"Recent experiences with filariasis." 43 (12), 371-376.

(429a) Largely basing his conclusions on experience of the medical staff at the Marine Barracks in Klamath Falls, Oregon, in handling servicemen returning to U.S.A. from the Pacific Islands, Haviland considers that public anxiety is not justified and that the disease is of very mild form. No microfilariae were found in the blood. A large percentage of men on limited duty will be returned to more normal duty within 6 to 12 months. 88% showed symptoms between 4 to 18 months after first exposure; only 0.2% showed severe involvement. Clinical judgement was as good as the skin test. Local reaction to the skin antigen material seemed frequently to give rise to clinical reactivation. R.T.L.

430—Ohio State Medical Journal.

*a. DAVIS, W. D. & SCOTT, R. W., 1944.—" Intestinal parasitism in Cleveland City Hospital, 1939–1944." 40, 1046–1050.

431—Ophthalmologia Ibero Americana.

*a. PACHECO-LUNA, R., 1944.—"La oncocercosis guatemalteca." 5, 345-347. summary p. 347.]

432—Paris Médical.

*a. RACHET, J., BUSSON, A. & LAURENT, P., 1944.—"Le cristal violet dans le traitement de l'oxyurose." 34 (7), 65–69.

433-Pediatría de las Américas. Mexico.

*a. CASTELLANOS GONZÁLEZ, A., VAZQUEZ PAUSSA, A. & PAUSSA TRUJILLO, J., 1944,—"El hierro a altas dosis en el tratamiento de las tricocefalosis." 2, 43-48.

*b. FOURNIER VILLADA, R., 1944.—" Nuevo tratamiento para la expulsión de los tricocéfalos." 2, 640.

434—Pediatría Prática. São Paulo.

*a. FERNANDES, M. P. DE A., 1944.—" Migração de Ascaris para o rim, bexiga e uretra de menino." 15, 111-118.

435-Philippine Journal of Science.

a. TUBANGUI, M. & MASILUNGEN, V. A., 1944.—" Some trematode parasites of fishes in the collection of the University of the Philippines." 76 (3), 57-67.

(435a) Three new species of fish trematodes found in the collection of the University of the Philippines are named: Prosorhynchus triangularis n.sp. from Glossogobius giurus, Clinostomum ophicephali n.sp. from Ophicephalus striatus, and Hexangium affinum n.sp. from Amphacanthus javus. R.T.L.

436-Prensa Médica Argentina.

*a. HUG E., 1944.—" Recientes adelantos en el tratamiento de las helmintíasis." 31, 1331-1334.
*b. AGUILAR, H. D., 1944.—" Quiste hidático del pulmón; quistotomía con marsupialización; anestesia locorregional combinada con presión intrabronquial controlada." 31, 2437-2440.

437-Presse Médicale

DESCHIENS, R., 1944.—"Les propriétes anthelminthiques des dérivés triphénylméthaniques." 52 (21), 315-317.

(427a) Deschiers describes the anthelmintic properties of dye-stuffs derived from triphenylmethane. B.G.P.

438—Proceedings of the American Federation for Clinical Research.

*a. BARNES, M. L., 1944.—" Incidence of human infestation with Trichinella spiralis as revealed by examination of 570 diaphragms at Louisville General Hospital with emphasis on problems of research." 1 (1943), 29-31.

439-Proceedings of the Florida State Horticultural Society.

*a. BATES, G. & FAIRCHILD, D., 1944.—"Protecting papaya plants from nematodes by the planting of Crotalaria spectabilis." 57, 181-182.

440-Proceedings of the Indian Science Congress.

a. DAYAL, J., 1944.—" On a new trematode Eucreadium eutropiichthyius n.gen., n.sp. from a fresh-

water fish Eutropiichthys vacha (Ham.)." [Abstract.] 31st Congress (1944), Part III, p. 88. DAYAL, J., 1944.—"On a new trematode Neopodocotyle indica n.gen., n.sp., from the intestine of the fresh-water fish Callichrous bimaculatus (Bloch)." [Abstract.] 31st Congress (1944),

of the fresh-water hish Callichrous bimaculatus (Bloch)." [Abstract.] 31st Congress (1944), Part III, p. 88.

c. CHAKRAVARTY, G. K., 1944.—"On a new species of the nematode genus Thubunaea Seurat." [Abstract.] 31st Congress (1944), Part III, p. 88.

d. IYER, R. P., 1944.—"Occurrence of Criconema rusticum Micoletzky, 1921, in Travancore." [Abstract.] 31st Congress (1944), Part III, p. 88.

e. SRIVASTAVA, H. D., 1944.—"An interesting trematode parasitic in an Indian marine food fish." [Abstract.] 31st Congress (1944), Part III, pp. 88-89.

f. INAMDAR, N. B. & BHALERAO, G. D., 1944.—"On the occurrence of Psilochasmus longicirratus Skrjabin, 1913, in Nyroca ferina in India." [Abstract.] 31st Congress (1944), Part III, p. 89.

g. INAMDAR, N. B., 1944.—"A new species of avian cestode, Ophryocotyloides bhaleraoi n.sp.,

g. INAMDAR, N. B., 1944.—"A new species of avian cestode, Ophryocotyloides bhaleraoi n.sp., from the purple-rumped sunbird, Cinnyris zeylonicus (Linn.)." [Abstract.] 31st Congress (1944), Part III, p. 89.

h. SARWAR, M. M., 1944.—"Two species of the nematode genus Setaria Viborg." [Abstract.] 31st Congress (1944), Part III, p. 89. SARWAR, M. M., 1944.—"An account of two species of lungworms from Indian goats."

SARWAR, M. M., 1944.—"An account of two species of lungworms from Indian goats."
 [Abstract.] 31st Congress (1944), Part III, p. 89.
 BHALERAO, G. D. & RAO, N. S. K., 1944.—"On some helminths of the fow!, mainly from India." [Abstract.] 31st Congress (1944), Part III, pp. 89-90.
 BHALERAO, G. D., 1944.—"An appeal to systematic helminthologists in India." [Abstract.] 31st Congress (1944), Part III, p. 90.
 MUDALIAR, S. V., 1944.—"Immature forms of Cotylophoron cotylophorum, causing fatal enteritis in goats." [Abstract.] 31st Congress (1944), Part III, p. 112.
 BHALERAO, G. D. & KAPOOR, B. N., 1944.—"Some observations on the life-history of Varestrongylus pneumonicus (Bhalerao, 1932)." [Abstract.] 31st Congress (1944), Part III, p. 112.

p. 112.
n. BHALERAO, G. D., 1944.—"Some remarks on the identity of immature amphistomes causing diarrhoea in domestic animals in India." [Abstract.] 31st Congress (1944), Part III, pp. 112-113.
o. SRIVASTAVA, H. D., 1944.—"A study of the life-history of Dicrocoelium dendrificum—the small liver-fluke of Indian ruminants." [Abstract.] 31st Congress (1944), Part III, p. 113.
p. SRIVASTAVA, H. D., 1944.—"A study of the life-history of Paramphistomum explanatum of bovines in India." [Abstract.] 31st Congress (1944), Part III, p. 113.
q. SRIVASTAVA, H. D., 1944.—"A study of the life-history of Gastrothylax crumenifer of Indian ruminants." [Abstract.] 31st Congress (1944), Part III, p. 113.
r. SRIVASTAVA, H. D., 1944.—"The intermediate host of Fasciola hepatica in India." [Abstract.] 31st Congress (1944), Part III, pp. 114-114.
s. SRIVASTAVA, H. D., 1944.—"A new intermediate host of Fasciola gigantica of Indian ruminants." [Abstract.] 31st Congress, Part III, p. 114.
t. SRIVASTAVA, H. D., 1944.—"A strongyle nematode infecting the liver of Indian cattle." [Abstract.] 31st Congress (1944), Part III, p. 114.
u. BHALERAO, G. D., 1944.—"Phyto-nematology': an untrodden path in India." [Abstract.] 31st Congress (1944), Part III, p. 131.

[Abstract.] 31st Congress (1944), Part III, p. 131.

- (440a) Dayal has described a new genus of allocreadiid trematode (Eucreadium eutropiichthyius n.g., n.sp.) characterized by the position and structure of the genitalia and the presence of opercula in the eggs. N.G.S.
- (440b) Neopodocotyle indica n.g., n.sp., found by Dayal in an Indian river fish, differs from Podocotyle mainly by the acetabulum being nearer the oral sucker and the uterus extending posterior to the ovary. N.G.S.
- (440c) This abstract does not name or describe a new species which was recovered from the stomach of Gekko gecko and stated to have been described in the paper.
- (440d) Criconema rusticum is recorded from India for the first time. It occurred in soil among the roots of sugar-cane.
- (440e) The peculiarities of Cryptocephalus indicus n.g., n.sp., described by Srivastava, include an eversible oral sucker at the base of an anterior muscular cup-shaped structure, absence of pre-pharynx and oesophagus, and intestinal crura opening separately in terminal ani. A minute acetabulum occurs at mid-body level, behind which there is a profuse development of cutaneous glands.
- (440f) [A full description of this cestode appears in Proc. Indian Acad. Sci., Sect. B, 1944, 20 (2), 48–50.]
- (440g) Inamdar gives the name Ophryocotyloides bhaleraoi n.sp. to a cestode from Cinnyris zeylonicus but this abstract neither mentions distinguishing features nor illustrates ir. P.A.C.
- (440h) [This paper describing two species of Setaria appears in full in Indian Vet. J., 1946, 22 (6), 405-409. For abstract see Helm. Abs., Vol. XV, No. 26b.]
- (440i) Two new species are recorded from Indian goats: Protostrongylus indicus n.sp. is differentiated from other species by the characteristic shape of the posterior ends of the spicules. Varestrongylus capricota n.sp. differs from V. pneumonicus in the absence of a spindleshaped gubernaculum. R.T.L.
- (440;) Acuaria spiralis, Raillietina rangoonica, R. grobbeni, Hymenolepis contaniana and Capillaria columbae are recorded for the first time in poultry in India. Tetrameres mohtedai n.sp. and Bhalfilaria badamii n.g., n.sp. are named but not described in this preliminary note.

- (440k) Bhalerao appeals to Indian helminthologists not to refer in later papers to helminths as new species or genera if they have already been named as new in abstracts or preliminary communications.

 R.T.L.
- (440l) [This paper on Cotylophoron appears in full in Indian J. Vet. Sci., 1945, 15 (1), 54-56.]
- (440m) The first stage larvae of Varestrongylus pneumonicus enters the mantle of the land mollusc, Macrochlamys cassida, and reaches the infective stage in 24 hours.

 R.T.L.
- (440n) Bhalerao has ascertained that the condition known as "immature amphistomiasis" which occurs throughout India and affects goats, sheep and cattle and is invariably fatal, may be caused by the young of different species of the genus *Cotylorphoron* of which 5 are recorded for India.
- (4400) The intermediate host of *Dicrocoelium dendriticum*, which in India is restricted to the hilly tracts and usually affects sheep, cattle and buffaloes very heavily, is an unnamed land snail. The cercariae are discharged from the pulmonary chamber in multiple cysts containing large numbers entangled in mucus which is left on vegetation as the snail glides along. R.T.L.
- (440p) Indeplanaries exustus has been found by experiment to be the intermediate host of Paramphistomum explanatum of carde and buffaloes in India where the infection is often very heavy, resulting in the choking of the bile ducts.

 R.T.L.
- (440q) Gastrothylax crumenifer is said to use Indoplanorbis exustus as intermediate host. This is the commonest amphistome in sheep, goats, cattle and buffaloes in Northern India and several thousands may be present in a single individual.

 R.T.L.
- (440r) Limnaea acuminata and L. luteola have both served experimentally as intermediate hosts for Fasciola hepatica in India.

 R.T.L.
- (440s) In addition to Limnaea acuminata it has been experimentally found that L. luteola can act as intermediate host for Fasciola gigantica in India.

 R.T.L.
- (440t) An unnamed adult "strongyle" is stated to inhabit the liver of hill bulls at Mukteswar.

441-Proceedings of the Institute of Medicine of Chicago.

*a. COGGESHALL, L. T., 1944.—" Current and postwar aspects of tropical disease problems." 15, 158-165.

442-Proceedings of the Zoological Society of London. Series B.

- a. BAYLIS, H. A., 1944.—" Notes on the distribution of hairworms (Nematomorpha: Gordiidae) in the British Isles." 113 (for 1943), 193–197.
- (442a) Baylis reports on the hairworms or gordiids (Nematomorpha) which have been received at the British Museum (Natural History) during the past 30 years. After discussing the difficulties of taxonomy and nomenclature, he deals with the distribution of the 4 following forms: Gordius villoti Rosa, 1882, Parachordodes violaceus (Baird, 1853), P. wolterstorffii (Camerano, 1888), and P. pustulosus (Baird, 1853). He adds notes on the occurrence of the worms in domestic water supplies and on their insect hosts.

443-Publications. Department of Agriculture, Canada.

a. BERKELEY, G. H. & RICHARDSON, J. K., 1944.—"Tomato diseases." No. 759 [Farmers' Bulletin No. 122], 18 pp.

(443a) For the control of *Heterodera marioni* in tomatoes it is recommended that (i) tomatoes should not be grown in infected soil, (ii) transplants from infected seedbeds should be discarded and (iii) infected greenhouse soil should be sterilized by steam or chloropicrin.

R.T.L.

444—Puerto Rico Journal of Public Health and Tropical Medicine.

a. SUÁREZ, R. M. & HERNÁNDEZ MORALES, F., 1944.—"Pulmonary schistosomiasis."

20 (2), 194-216. [Also in Spanish pp. 217-241.]
b. OLIVER-GONZÁLEZ, J. & PRATT, C. K., 1944.—"Skin and precipitin reactions to antigens from cercariae and adults of Schistosoma mansoni." 20 (2), 242-248. [Also in Spanish pp. 249-256.]

(444a) The authors review the literature on pulmonary schistosomiasis and present 5 cases (average age 13.8 years) of S. mansoni infection in each of which there was clinical evidence of lung involvement and 3 of which showed peculiar X-ray findings in the lungs. The importance of diagnosing early changes in the lungs when these are still amenable to treatment and the value of the use of X-ray for this purpose is pointed out. The relationship between bronchial asthma and schistosomiasis is discussed briefly.

J.J.C.B.

(444b) Oliver-González & Pratt show that the skin of patients carrying Schistosoma mansoni is highly sensitive to saline extracts of adult worms and cercariae. Positive results were obtained with 1:200,000 dilution but higher dilutions did not give positive results. Negative results were obtained with Taenia saginata antigen and with physiological saline. The schistosome antigen did not give positive results in patients carrying a variety of other helminths.

P.A.C.

445—Report of the Department of Lands and Mines of the Province of Alberta.

a. MILLER, R. B., 1944.—"Suggestions for experiments in the control of the pike-whitefish tapeworm, *Triaenophorus crassus*." [A report prepared for the Fisheries Branch.] 15 pp.

(445a) Miller reviews the recent work on the life-history of *Triaenophorus crassus*, a cestode parasite which renders the flesh of whitefish and tullibee in the Canadian lakes unfit for sale, and puts forward suggestions for the control of the parasite. The first intermediate host, *Cyclops bicuspidatus*, is so hardy and cosmopolitan that it is difficult to suggest means of control. The second intermediate host, tullibee, is absent from several lakes and it is suggested that care should be taken that it is not introduced into these and that no restrictions should be placed on fishing it in places where it does occur. Jackfish, one of the potential definitive hosts, should be reduced drastically by all possible means—overfishing, by poisoning or electrocution, and by the construction of dams to hinder spawning. Experiments should be made to assess the possible value of these methods of attack. It might be possible to control the free-living coracidia by altering the pH of the water during the brief period in the spring when they occur in large numbers. Other possible methods of attack are briefly indicated.

P.A.C.

446—Report of the Division of Veterinary Science, Michigan State College.

a. HAWKINS, P. A., 1944.—" Parasitology." 1944, pp. 56-58.

(446a) A mixture of salt and phenothiazine (1:14), if kept before sheep before they go to pasture and kept before them while on pasture throughout the summer, is an effective control for internal parasites. The risk of pastures perpetuating parasites from one year to the next on permanent pastures is slight. In Michigan pastures become free from Haemonchus contortus in 2 months in the late summer and early autumn, and in $3\frac{1}{2}$ months from Oesophagostomum columbianum and Chabertia ovina but even after $4\frac{1}{2}$ months pastures had viable larvae of Ostertagia circumcincta, Trichostrongylus columbriformis, Nematodirus and Trichuris ovis. It is concluded that the breeding flock perpetuates parasites not the pastures.

447—Report. Washington Agricultural Experiment Station.

a. McCULLOCH, E. C., 1944.—"Phenothiazine and related products as controls for internal parasites of poultry." 54th (1943-44), p. 75.

(447a) Several compounds related to phenothiazine, but not mentioned by name, are reported to be equally effective in removing *Heterakis gallinae* from chickens though ineffective against *Ascaridia lineata*. Several anthelmintics become more efficient when administered with 2 mg. amphetamine sulphate.

P.A.C.

448-Revista Argentina de Urología.

*a. SURRA CANARD, R. DE., 1944.—" Tratamiento biológico de la equinococcia del riñón; comunicación previa." 13, 195-200.

449-Revista Brasileira de Biologia.

a. LEÃO, A. T., 1944.—" Sistema excretor de Renifer heterocoelium (Travassos, 1921) Travassos, 1928 (Trematoda, Reniferinae)." 4 (1), 109-112. [English summary p. 112.]

(449a) Although the excretory system of Renifer heterocoelium, from the mouth and oesophagus of snakes, is much obscured by uterine eggs, if the living flukes are transferred to tap water the eggs are all discharged and the excretory system can then be clearly seen. The flame-cell pattern, (3+3+3)+(3+3+3) on each side, and the Y-shaped bladder are described by Leão and illustrated by a free-hand drawing.

450-Revista Brasileira de Cirurgia.

a. OSBORNE, C., 1944.—"A radiologia e a cisticercose humana." 13 (5), 235-244.

451-Revista Brasileira de Medicina.

*a. FIGUEIREDO CORTES, J. DE, 1944.—"Verminòses e protozooses em Vitória e seus

arrabaldes." 1, 304-312.

BEZERRA COUTINHO, TAVARES, L. & MENEZES, H., 1944.—"Lesões hepáticas no tratamento da esquistosomíase, atribuidas aos vermes mortos." 1, 660-662.

452—Revista Chilena de Historia Natural.

TAGLE V., I., 1944.—" Observaciones sobre la evolución de la Fasciola hepatica, Linneo 1753. Comprobación del huesped intermediario en Chile." 46/47 (for the years 1942-1943), 232-241.

(452a) Tagle finds that eggs of Fasciola hepatica hatch in from 9 days at 25° to 31°C. to 45 days at 11° to 19°C., even under as much as 14 cm. of water. Miracidia live from 51 hours at 27° to 20 hours at 10° to 13°C. As in many other South American countries, the intermediary is Limnaea viatrix (attempts to infest Planorbis chilensis and Chilina fluctuosa were fruitless). Sporocysts are visible in 9 days, rediae in a month, and cercariae after 37 to 60 days, depending on temperature. Encysted cercariae, fed to rabbits, became adult in 54 days. Snails in full cercaria-production were fed to a goat and a rabbit. Autopsied after 60 days the rabbit's liver contained no flukes, the goat's 3 which, however, may have developed from cercariae encysted on the snail's shell. Copper sulphate to give a concentration of 1:200,000 is recommended against the snail. B.G.P.

453—Revista Chilena de Pediatría.

*a. MARTINEZ L. DE G., F., 1944.—"Triquinosis en el niño." 15, 297-315.

*b. SIMPFENDORFER S., E., 1944.—"Intoxicación por ascaridol." 15, 388-393.

*c. COSTA, A. & COPPO, M., 1944.—"La eosinofilia en la oxiurasis." 15, 562-566.

454—Revista Clínica de São Paulo.

*a. SACRAMENTO, W., GAYOTTO, P. & BROTTO, W., 1944.—"Observacões sobre o poder antihelmíntico do hexilresorcinol." 15, 127-134.
*b. SACRAMENTO, W., 1944.—"Sôbre o poder antihelmíntico do hexilresorcinol na ancilostomose." 15, 159-161.

*c. PEREIRA BARRETTO, M. & ANNAL, A. D. F. DO, 1944.—"Sôbre dois casos de parasitismo do homen pelo Ancylostoma caninum (Ercolani, 1859) Hall, 1913." 16, 235-240.

455—Revista Ecuatoriana de Higiene y Medicina Tropical.

*a. ALVAREZ CRESPO, J., 1944.—" Dirofilaria immitis; investigación en perros de la ciudad de Guayaquil." 1, 199-202.

*b. ALVAREZ CRESPO, J., 1944.—" Parasitismo intestinal en enfermos hospitalarios de Guayaquil." 1, 203-210.

456-Revista Española de Cirugía, Traumatología y Ortopedia.

a. EIZAGUIRRE, E., 1944.—"Tratamiento quirúrgico de los quistes hidatídicos de pulmón."

1 (1), 19-41.

b. CODERQUE, R. & DÍEZ, C., 1944.—"Nefrectomía por quiste hidatídico." 1 (1), 56-60.

*c. LORENZO FERNÁNDEZ, T. & PURSELL MÉNGUEZ, A., 1944.—"El pneumoperitoneo diagnóstico en los quistes hidatídicos de base pulmonar derecha." 1, 428-439.

457-Revista de la Facultad de Medicina. Bogotá.

 a. BONILLA NAAR, A., 1944.—" Historia de la medicina tropical, parasitologia e higiene, en Colombia. Datos bibliográficos correspondientes a 113 años de labores colombianas (1830–1943)." 13 (2), 145-163. [English summary p. 163.] b. BONILLA NAAR, A., 1944.—"Ciclo evolutivo del Strongyloides stercoralis." 13 (3), 258-259.

c. BONILLA NAAR, A., 1944.—"Ciclo evolutivo del Ancylostoma duodenale y del Necator americanus," 13 (3), 260-261.
d. URIBE-PIEDRAHITA, C., 1944.—"Una nueva especie de Cercaria cistofora de la sabana de

Bogotá." 13 (3), 296–298.

e. BONILLA NAAR, A., 1944.—" Historia de la medicina tropical, parasitologia e higiene en Colombia. Datos bibliográficos correspondientes a 113 años de labores colombianas." 13 (4),

f. BONILLA NAAR, A., 1944.—"Ciclo evolutivo de la Taenia saginata." 13 (4), 418-419. g. BONILLA NAAR, A., 1944.—"Ciclo evolutivo de la Taenia solium." 13 (4), 420-421.

458—Revista Ibérica de Parasitología.

a. LÓPEZ-NEYRA, C. R., 1944.—" Compendio de helmintologia ibérica." 4 (1), 75-96; (2), 138-198; (3), 209-342; (4), 403-492. LÓPEZ-NEYRA, C. R., 1944—"Nematotaenia tarentolae n.sp., parásita intestinal de

geckonidos." 4 (2), 123-137.

(458b) During examination of various lizards harbouring stages of the life-cycle of Diplopylidium and Joyeuxiella, López-Neyra found a cestode species which he describes under the name Nematotaenia tarentolae n.sp. It is a parasite of Tarentola mauritanica and Platydactylus guttatus and is distributed along the north side of the Mediterranean. It can be distinguished by the size of the scolex and suckers, by the small extent of the cirrus sac and by the presence of single eggs in the uterine capsules of the gravid segments. It is the Taenia dispar of Rudolphi (nec Goeze). P.A.C.

459—Revista Médica de Chile.

a. IBARRA LORING, E., 1944.-" Linfangitis crónica generalizada. Elefantiasis magna del escroto y pene." 72 (10), 916-919.

b. MARTINI H., J., 1944.—" Quiste hidatídico del cuerpo tiroides abierto a la tráquea." 72 (10). 922-923.

460-Revista Médica de Costa Rica.

VESALIO GUZMAN, A., JIMÉNEZ, J. M. & GUZMAN CENTENO, J., 1944.— "Quiste hidatidico del bazo." 6, 291-294.

461-Revista Médica Cubana.

*a. FERNÁNDEZ SUÁREZ, F. W., 1944.—" Efectos del tratamiento por la leche de higuerón, el tetracloruro de carbono y aceite de quenopodio sobre distintas parasitosis." 55 (9), 715-720.

462-Revista Médica del Hospital Italiano de La Plata.

*a. UNCHALO, D., MAINETTI, J. M. & CUCULICCHIO, C., 1944.—"Quiste hidático del bazo abierto en bronquios." 1, 173-175. [June.]
*b. MAINETTI, J. M. & COUYET, L., 1944.—"Quiste hidatídico de pulmón. Operación en un tiempo en pleura libre y con baronarcosis." 1 (2), 15-18. [July/Sept.]

*c. UBACH, F., 1944.—"Sinopsis etiopatogénica y anatomo patológico de la equinococosis."

1 (2), 29-36. [July/Sept.]

*d. UNCHALO, D., 1944.—"Quiste hidatídico de pulmón: síndrome clínico y radiológico."

1 (2), 37-42. [July/Sept.]

*e. MAINETTI, J. M., 1944.—"Quiste hidatídico del pulmón. Tratamiento." 1 (2), 43-55.

[July/Sept.]
MAINETTI, J. M. & CUCULICCHIO, C., 1944.—"Secuelas del tratamiento quirúrgico del quiste hidatídico del pulmón." 1 (2), 57–59. [July/Sept.]
MAINETTI, J. M. & GIOVAN BATTISTA, N. DI, 1944.—"Quiste hidatídico supurado del hírado." 1 (2), 107–110. [July/Sept.] *f. *g.

463-Revista Médica Panamericana.

*a. TAVARES, L. & MENEZES, H., 1944.—"A biópsia do fígado na esquistosomíase mansônica." 1, 65-85.

464-Revista Médica Peruana.

a. GRINBLAT, S., 1944.—" Terapéutica biológica de la equinococosis según el procedimiento del Prof. Bartolomé M. Calcagno." 17, 225-230.

465-Revista Médica de Yucatán.

*a. SANTOS ZETINA, F., 1944.—" La parasitosis intestinal en Yucatán desde el punto de vista sanitario." 23, 302-306.

466—Revista de Medicina y Cirugía, Barranguilla.

*E. LOZADA DEL RIO, G., 1944.—"Tratamiento de las parasitosis intestinales en el niño." 11, 18-49.

467—Revista de Medicina Veterinaria. Buenos Aires.

a. CAVANDOLI, H. E., 1944.—"Inspección sanitaria de los productos de caza." 26 (9/10),

413-434; (11/12), 510-556. b. BEVITTON, J W. & MILLER, R. F., 1944.—"La aplicación práctica de la medicación antihelmíntica de los corderos." 26 (9/10), 455-460.

c. AULT, C. N., 1944.—" Nematodes parásiros de los bovinos y ovinos en la Argentina. (Segunda nota)." 26 (11/12), 497-509. [English summary p. 509.]

(467a) In this long account of the inspection of game in Buenos Aires, which includes an illustrated description of the birds and mammals (hares and armadillos) concerned, and sections on food values and on putrefaction, Cavandoli briefly mentions Cysticercus pisiformis, liver fluke as d Trichinella (pp. 553-554). The latter has been experimentally transferred to an armadillo and hence might occur in nature.

(467b) This is a translation of a paper in J. Amer. Vet. Med. Ass., 1944, 104 (806),

270-272. For abstract see Helm. Abs., Vol. XIII, No. 30e.]

(467c) Ault describes Nematodirus lanceolatus n.sp. from the small intestine of sheep in the Argentine. It can be recognized by the shape of the spicules and the ramifications of the dorsal ray. N. abnormalis and N. helvetianus are recorded from the Argentine for the first time. Full descriptions of 5 species of the genus from cattle and sheep are given together with a table for the easier comparison of species. P.A.C.

468—Revista Medico-Cirurgica do Brasil.

*2. PILAR. C. L. F. DO, 1944.—"Considerações em tôrno da emetinoterapia." 52, 555-558.

469—Revista Méxicana de Psiquiatría, Neurología y Medicina Legal.

*a. ANDÍA, E. D., 1944.—"La parasitosis intestinal como factor psicopático." 11, 3-8.

470—Revista de Sanidad y Asistencia Social. Venezuela.

a. JAFFÉ, R., 1944.—" Observaciones sobre lesiones puimonares producidas por Schistosoma mansom. (Su frecuencia y su importancia)." 9 (6), 1287–1298.

b. POLLAK, L., 1944.—" Infestación parasitaria en tuberculosos." 9 (6), 1315–1324.

c. POLLAK, L., 1944.—" Alergia ascaridiana y tuberculínica. Influencia de los productos del metabolismo del áscaris sobre la tuberculosis experimental." 9 (6), 1445–1458.

(470a) Jaffé reports that 50 autopsies on cases of Schistosomiasis mansoni in Venezuela showed pulmonary lesions in 12. Apart from localized lesions around schistosome ova (and one case in which an adult worm was found), there were also signs of endo- or peri-angiitis involving constriction and even occlusion of vessels. The lesions seen were not considered sufficiently extensive to be of clinical importance.

(470b) Over a period of 3 years from 1940, Pollak examined 1,070 hospitalized tuberculosis patients for intestinal parasites. By way of control he uses the data of Briceño Rossi (1941), and states that (with the exception of Ascaris) the incidence of parasites was higher in the tuberculosis group. He explains this by the reduced resistance to tubercle brought about by most parasites and by reinfection with tubercle through lesions of the intestinal wall. The commonest helminths were Trichuris (76%), Necator (25%), Ascaris (22%), and Strongyloides (15%).

B.G.P.

(470c) Pollak has administered subcutaneously ascaris antigen and an attenuated strain of Koch's bacillus into guinea-pigs, the controls having either one or the other. After 6 days an allergic reaction to Ascaris could be demonstrated in all the pigs which had received antigen. But the presence of the Ascaris antigen delayed the onset of the sensitivity to tuberculin though it increased the number of tubercular lesions which were apparent at autopsy.

471—Revista de Sanidad e Higiene Pública, Madrid.

*a. QUINTANA, P. DE LA & BLANCO GRANDE, P., 1944.—" Epidemia de triquinosis en Collado Mediano (Madrid)." 18, 355–365.

472-Revista de la Universidad de Habana.

*a. PÉREZ VIGUERAS, I., 1944.—" Trématodes de la superfamilia Strigeoidea; descripción de un genero y siete especies nuevas." 52/53/54, 293-314.

*b. PÉREZ VIGUERAS, I., 1944.—" Trématodes de la superfamilia Echinostomatidae, con descripción de siete especies nuevas de Cuba." 55/57, 221-234.

(472a) The following strigeids are described from Cuban birds: Apharyngostrigea duboisi n.sp. from Butorides virescens maculatus, A. gundlachi n.sp. from Ixobrychus e. exilis, A. insulae n.sp. from Florida caerulea, Choanodiplostomum lintoni n.sp. from Gallinula chloropus cerceris, Diplostonum brevisegmentatum n.sp. from Colymbus d. dominicus, Ophiosoma multiovatum n.sp. from Egretta t. thula, and Posthodiplostomum antillanum n.sp. from Butorides virescens maculatus. Choanodiplostomum is proposed as a new genus of Diplostominae. Eight known forms are also listed. [From an abstract in Biol. Abstr., 20, No. 21466.]

(472b) The following helminths are recorded from Cuban birds: Echinostoma americana n.sp. from Fulica a. americana, E. gracile n.sp. from F. carabaea, E. multispinesa n.sp. from Oxyura j. jamaicensis, Nephrostomum robustum n.sp. from Colymbus d. dominicus, Prionosoma malacophylum n.sp. from Rostrhamus sociabilis laevis and P. pricei n.sp. from Jacana spinosa violacea, Euparyphium capitaneum from Anhinga anhinga and Prionosoma serratum from Aramus scolopaceus pictus. Echinochasmus megatyphlus is described from Butorides virescens macula: Pomacea paludosa is intermediate host of Prionosoma malacophylum. [From an abstract in Biol. Abstr., 20, No. 14336.] R.T.L.

473—Revista de la Universidad Nacional de Cordoba.

*a. BERTOLA, V. J., 1944.—" Distomatosis hepática y litiasis biliar." 31 (4), 1325-1330.

474-Revue Médicale Française du Moyen-Orient.

*a. ASQUINS, P., 1944.—"Douze observations d'infiltrats pulmonaires labiles du type infiltrat de Loeffler. Role vraisemblable de l'ascaridiose dans l'etiologie de ce syndrome." 2, 327-343.

475—Salubridad y Asistencia, Mexico.

*a. MAZZOTTI, L. & RAMIREZ, J., 1944.—" Investigación de oxíuriasis en 813 individuos de la altiplanicie mexicana." 1, 111–114.

476—Sang.

a. LAVIER, G. & BRUMPT, L. C., 1944.—"L'évolution de l'éosinophilie au cours de l'ankylostomose." 16 (2), 97-102.

(476a) In ancylostomiasis eosinophilia which may appear on the 20th day reaches a maximum about the 3rd month and becomes established at about the 6th month. Anthelmintic treatment temporarily maintains the eosinophil count at a high level but reinfection causes little increase owing apparently to an acquired resistance. There is no correlation between eosinophilia and the number of infesting larvae nor is the pulmonary phase of their migration sufficiently long to reveal itself by eosinophilia. R.T.L.

477-São Paulo Médico.

*a. FIGUEIREDO MAGALHÃES, B. & LOPES DE FARIA, J., 1944.—" Esquistosomose de Manson associada a linfosarcoma." 1, 109-119.

478—Schweizer Archiv für Tierheilkunde.

a. SCHMID, G., 1944.—"Beitrag zur Bekämpfung der Pferde-Strongylose." 86 (3), 98-105. (478a) Schmid finds that the anaemia and nephritis, which have been recorded as toxic effects following single large doses of phenothiazine in horses, do not occur if doses of 10 gm. are given on 4 to 6 successive days to fully grown horses, or doses of 5 gm. to foals. He gave daily 10 gm. and 15 gm. doses to two worm-free horses, testing the urine for albumin and measuring the sedimentation velocity of red cells and the volume of red and white cells. He then gave comparable doses to 5 horses with strongylesis, finding a reduction in strongyle eggs to zero, a marked increase in body weight within a few weeks, and no toxic symptoms. This was confirmed in a further 25 cases.

479—Schweizerische Medizinische Wochenschrift.

a. SPÜHLER, O. & KARTAGENER, M., 1944.—" Endemisches Auftreten eosinophiler Lungeninfiltrate in einer militärischen Einheit nebst Bemerkungen über das "miliare" eosinophile Infiltrat." 74 (44), 1145-1149.

(479a) Examining 28 cases of Loeffler's syndrome from two military units, Spühler & Kartagener found Ascaris present in most cases, though the eggs often first appeared in the stool some time after the syndrome. A miliary form of eosinophilic lung infiltration is described.

480—Seara Médica: São Paulo.

*a. MEIRA, J. A., 1944.—" Esquistosomose mansoni com localisação vesical; considerações à propósito de um caso com comprovação necroscópica." 3, 45-61.

481—Semana Médica. Buenos Aires.

*a. HUARQUE FALCÓN, J., 1944.—"Las parasitosis intestinales en Santa Fe." 1,881-884.
*b. ROSA, M. A. DE, OLIVA, F. F. & LO GULLO, O., 1944.—"Filaria bancrofti." 788-794.

482—Skandinavisk Veterinär-Tidskrift.

BRINCK, P., 1944.—"Resultatet av en undersökning av parasit- och tuberkulosförekomsten hos hundarna i Malmö stad." 34 (11), 685–695. [English summary p. 695.]

(482a) Brinck reports on the parasitological findings in 131 post-mortems and 91 examinations of sick dogs from the town of Malmö. Although no hookworms were found among the former, 39% of the latter were infested with them. B.G.P.

483—Southern Agriculturist.

*a. STUCKEY, H. P., 1944.—" Controlling root-knot nematode." 74 (10), 10.

484—Spreckels Sugar Beet Bulletin.

a. CRANE, C. E., 1944.—"Beets on nematode infested soils." 8 (1), 8.
b. ALLEN, M. W., 1944.—"Nematode pests of sugar beets." 8, 15, 17, 21–22.

485—Suomen Eläinlääkärilehti. (Finsk Veterinärtidsrkift).

*2. WIIDIK, R., 1944.—"Beobachtungen über die Wirkung einiger Wurmmittel." No. 2, p. 29.

(4852) Wiidik finds effective against horse parasites 150 gm. carbon tetrachloride by nasal sound preceded and followed by, respectively, I and 3 litres of cold water. In severe infections the dose may need repeating after a fortnight. Equally effective are 2 large capsules of "Ciff". 30 gm. carbon disulphide was effective against ascarids and bots, but somewhat toxic. [From an abstract in Tierärztliche Zeitschrift, 1944, 12.]

486-Svensk Veterinärtidskrift.

*a. NORUP, E. B. & ROTH, H., 1944.—" Naagot om trikinos, med anledningar av en epidemi i Alingsaas-trakten." 49 (11), 370–382.

487-Transactions of the Lincolnshire Naturalists' Union.

a. ROEBUCK, A., 1944.—" Notes on the economic zoology of Lincolnshire during 1943." 1943, pp. 36-40.

(487a) Roebuck notes that Heterodera rostochiensis still continues to spread in potatoes and glasshouse tomatoes in Lincolnshire, and that Anguillulina dipsaci causes damage to potato tubers, especially in the south of the county. It also causes much damage to onions all over the county. H. marioni attacked tomatoes in the Bourne area.

488-Transactions of the New York Academy of Sciences.

a. STUNKARD, H. W., 1944.—" How do tapeworms of herbivorous animals complete their life cycles?" Ser. II, 6 (3), 108-121.

(488a) In an address to the New York Academy of Sciences, Stunkard recounts the lifehistory of the anoplocephalid tapeworms, describing the recent work on the subject.

489—Transactions of the Royal Society of Canada. Section V. Biological Sciences.

a. FALLIS, A. M., 1944.—"Experimental studies on Ascaris lumbricoides L. infection in guinea pigs." [Abstract.] Ser. 3, 38, 161.

(489a) From this very brief abstract Fallis has, apparently, investigated the effect of Ascaris lumbricoides on the host, the eosinophilia associated with the infection and the resistance induced by it. The liver appears to be an important barrier in resistant animals. P.A.C.

490-Transactions of the Wisconsin Academy of Sciences, Arts and Letters.

a. BANGHAM, R. V., 1944.—"Parasites of northern Wisconsin fish." 36, 291-325.
b. MORGAN, B. B., 1944.—"The Physaloptera (Nematoda) of carnivores." 36, 375-388.

(490a) Bangham presents the results of a survey of the fish parasites from certain Wisconsin lakes. 93% of 1,330 fish belonging to 38 species were infected with at least one parasite, the commonest parasites being various encysted metacercariae and also Monogenea. The details are given under species of fish.

(490b) Reviewing the species of *Physaloptera* from carnivores, Morgan recognizes the following 9 as valid: P. maxillaris, P. praeputialis, P. torquata, P. rara, P. canis, P. anomala, P. terdentata, P. brevispiculum and P. masoodi, of which the first 4 occur in the U.S.A. P. felidis is regarded as synonymous with P. rara. Male tails are figured and there is a parasite host list and key to species. B.G.P.

491—Tropical Medicine News. New Orleans.

a. NAPIER, L. E., 1944.—" Filarial infection in returning service men." 1 (2), 14-15.
b. LAWTON, A. H., 1944.—" Failure of placental passage of microfilariae." 1 (3), 19.
c. CRAM, E. B. & BOZICEVICH, J., 1944.—" Experimental Schistosoma mansoni infection by

intraperitoneal injection." 1 (4), 16-17.

d. COGGESHALL, L. T., 1944.—" Filariasis and malaria. Marine Barracks, Klamath Falls, Oregon." 1 (6), 17-19.

(491a) Napier points out that only a fraction of 1% of native populations which have as much as 5% microfilarial infection show gross lesions at any time during their lives. Assurances should therefore be given to servicemen returning from those parts of the tropics where filarial disease is endemic that the development of gross elephantoid deformities is very unlikely.

(491c) Monkeys, rabbits, hamsters, guinea-pigs and mice have been successfully infected by the intraperitoneal injection of cercariae. Schistosoma mansoni eggs appeared in a monkey 50 days after it was injected by this method.

(491d) Only 4% of several hundred cases of "filariasis" in the Marine Barracks, Oregon have discernible symptoms, e.g. lymphangitis and adenopathy. 8% had subjective symptoms, e.g. muscular aching, fatigue, etc. 0.7% of patients with filariasis required admission to hospital mainly because of lymphangitis of the lower extremities. No microfilariae have been observed. R.T.L.

492-Ugeskrift for Landmaend.

^{*}a. JENSEN, J. K., 1944.—"Lucerneaal." 89, 156.
*b. MØLLER, J., 1944.—"Kløveraal (Tylenchus dipsaci)." 89, 513-517.

493—University of Allahabad Studies. Biology Section.

a. VRAT NIGAM, V., 1944.—"New trematodes of the family Echinostomatidae, Poche 1925 (Part II) genus—Petasiger." 1944, pp. 1–8.
b. VRAT NIGAM, V., 1944.—"New trematodes of the family Echinostomatidae, Poche 1925 (Part III) genus—Patagifer." 1944, pp. 9–13.

(493a) Petasiger yamaguti n.sp. from Anhinga melanogaster and P. antigonus n.sp. from Antigone antigone are described by Vrat Nigam. Both of these species have 27 collar-spines and a rounded pre-acetabular cirrus pouch; the former has a neck but no prepharynx, and the latter lacks a neck but has a prepharynx and a relatively large oval acetabulum. A key is given for some of the species.

(493b) Vrat Nigam describes Patagifer simarai n.sp. from Platalea leucordia major, distinguishing it from the genotype (from the same host-genus from the Sudan and Australia) by the cirrus sac being clearly in front of the acetabulum, and from other species by this character and its 27 collar-spines.

494-Verhandlungen der Schweizerische Naturforschenden Gesellschaft.

a. BAER, J. G. & JOYEUX, C., 1944.—"Réalisation expérimentale d'un nouveau cycle évolutif de cestode de la souris blanche (note préliminaire)." 124 (1943-44), 133-134.

(494a) Baer & Joyeux have completed the life cycle of Catenotaenia pusilla involving a mite, Glyciphagus domesticus, as vector. The larva is of a surprising type, resembling a plerocercoid with its large apical sucker. It develops to maturity in the mite in 15 days and when infective shows no trace of the cyclophyllid suckers. These develop after ingestion by the definitive host, after which the apical sucker disappears. P.A.C.

495—Veterinariya.

a. SKRYABIN, K. I., 1944.—[Achievements of Soviet helminthology and some failures in its practical application.] 21 (4), 8-13. [In Russian.]
b. OZERSKAYA, V. N., 1944.—[Conference on problems in helminthology held by chief veterinary committee in U.S.S.R.] 21 (4), 13-16. [In Russian.]
c. PETROV, A. M., 1944.—[Dynamics of infestation with Moniezia and Dictyocaulus in sheep, goats and cattle.] 21 (4), 17-19. [In Russian.]
d. BOEV, S. N. & BONDAREVA, V. I., 1944.—[Seasonal infestations of Dictyocaulus in southeast Kazakhstan.] 21 (4), 20. [In Russian.]
e. ORLOV, I. V., 1944.—[The urine of animals as a vermicide.] 21 (4), 21-22. [In Russian.]
f. KRASTIN, N. I. & IVASHKIN, V. M., 1944.—[Thelaziasis in the eye of horses in the Far East.] 21 (4), 31. [In Russian.]

East.] 21 (4), 31. [In Russian.]
g. ALEKSANDROV, N. A., 1944.—[A standard method of examining faeces for ova.] 21 (4), 32-33. [In Russian.]
h. KRASTIN, N. I., 1944.—[The epizootology of Dictyocaulus in cattle.] 21 (8/9), 14-17.

BASKAKOV, V. P., PANOVA, L. G. & MITSKEVICH, V. Y., 1944.-[Paraffin in the treatment of ascaridosis, strongylidosis, trichonematosis and oxyuriasis in horses.] 21 (8/9), 18-19. [In Russian.]

j. OZERSKAYA, V. N., 1944.—[Treatment of Moniezia in sheep.] 21 (8/9), 19–20. [In Russian.] k. KORNIENKO, Z. P. & PELEVIN, V. K., 1944.—[Trichinella spiralis in Caracal caracal.]

21 (8/9), 22. [In Russian.]
BRANZBURG, A. I., 1944.—[The hygienic and economic importance of helminths in national life in U.S.S.R. and the problem of their control.] 21 (11/12), 16-17. [In Russian.]

- (495a) Skryabin in this article reports the main achievements of Russian helminthologists and discusses the difficulties met with in their practical application. In his conclusion he gives what are, in his opinion, the most important factors in the control of helminths.
- (495b) The author in this article reports the discussion on Prof. Baskakov's paper on the control of helminths in domestic animals in the Leningrad district.
- (495c) Petrov stresses the importance of the seasonal variation in the development of Moniezia and Dictyocaulus larvae in different regions of U.S.S.R. In this connection he outlines a plan for the control of these parasites in sheep, goats and cattle.

- (495d) The authors after discussing the intensity of Dictyocaulus infections in sheep in different seasons of the year recommend the mass treatment as a preventive measure in the second half of the winter and again for treatment of the disease at the end of the winter and the beginning of spring.

 C.R.
- (495e) Orlov discusses the potential danger of helminthiasis in sheep when the latter are kept indoors during winter. He found, however, that the danger is not great and that although the worm eggs hatch, the urine from the sheep destroys the first and second stages of strongylid larvae.

 C.R.
- (495f) The authors, making post-mortem examinations in April and July 1941 on the eyes of horses, found 4 out of 32 infected with Thelazia.
- (495g) To obtain standard results when examining faeces for ova, Aleksandrov advises the following method. Two grammes samples of faeces are weighed and placed in test tubes, half filled with a concentrated salt solution. This is shaken in order to mix thoroughly. The tube is then filled to capacity with the salt solution, mixed again, and left to stand for 5 minutes. Then, with a wire loop of approximately 7 mm. diameter, 5 drops are collected from the surface of the mixture, the first drop from the centre and the other 4 from the periphery. Each drop is placed separately on a slide and examined. The first is usually found to contain several times more ova than the other drops. When I to 5 eggs are seen under ocular 7 and objective 3, the degree of infection is determined as weak; 6 to 10 eggs is moderate but when more than 10 are visible the infection is severe. According to the author, it should be possible, with the help of an assistant, to examine 35 to 40 samples per hour.
- (495h) According to Krastin, infestation with Dictyocaulus among the cattle in the Habarovsk district is present throughout the year and he advises mass examination not later than September and not earlier than April. He stresses the fact that during the winter (October to March) the faeces for examination for Dictyocaulus should be exposed in the Baermann apparatus for 7 to 8 hours. As a precautionary measure there should be no contact between young and old cattle on the farm, neither on pastures nor at watering places. In addition to prophylactic dosing in spring and autumn the author recommends the dosing of young cattle in summer. The control of Dictyocaulus among old cattle should be based on periodic dosing and rotation of pastures.
- (495i) The authors describe experiments using paraffin in the treatment of 82 horses infected with Ascaris, Strongylus, Trichonema and Oxyuris. The dose of 0.5 to 1.0 gm. of paraffin per 1 kg. body weight was given mixed with water or water and vegetable oil and gave good results. Tests on the safety of paraffin in the horse are also described and show that large doses mixed with water do not produce ill effects.
- (495j) As a prophylactic measure against Moniezia, the author dosed 2,298 lambs with 1·1% solution of copper sulphate 25 to 30 days after the sheep were put out on pasture. This treatment gave very good results.
- (495k) The authors, examining 9 specimens of Caracal caracal in Ashkhabad Zoo of Turkmen S.S.R., found 3 infected with Trichinella spiralis.
- (495l) Reporting on a lecture delivered by Skryabin, the author quotes examples from papers published by Russian helminthologists showing the importance of helminthology in medicine and veterinary science. Plans for the future development of this branch of science were also discussed.

 C.R.

496-Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening.

a. BOVIEN, P., 1944.—" Proatractonema sciarae n.g., n.sp., a parasitic nematode from the body cavity of a dipterous larva." 108, 12 pp.

(496a) Bovien gives an illustrated description of *Proatractonema sciarae* n.g., n.sp., which he found parasitizing the body cavity of larvae of a fly, *Sciara* sp. Whereas in the male the mouth spear is rudimentary, in the female it is functional and the alimentary canal is provided

with 2 prominent oesophageal glands. The male spermatizes the free female in the pre-adult stage and she then makes her way into the larva of the host where growth in length takes place and her genitalia undergo various growth changes. The ovary increases in length and becomes coiled and a group of cells of the dorsal wall of the uterus grows forward and protrudes through the greatly distended vulva; the aperture for the passage of eggs being just in front of this cell group. Bovien contrasts the new form with Atracta gibbosum of Leuckart and indicates certain important morphological and structural differences.

497-Yearbook. Institute of Inspectors of Stock of New South Wales.

a. BRAY, K. S. F., 1944.—"Infestation of sheep in Hay Pastures Protection District with worms of the species Nematodirus." 1944, pp. 23, 25-26.
b. GORDON, H. McL., 1944.—"Treatment of haemonchosis under outbreak conditions."

1944, pp. 27-30.

(497a) In the Hay Pastures Protection District of New South Wales, infection of sheep with Nematodirus spp., particularly N. spathiger, may be of great importance. Bray reports heavy losses as a result of infestation during the spring and summer droughts of 1938 and 1939. Losses were not confined to young lambs, for ewes as old as 5 years were also involved. The standard copper-nicotine-sulphate mixture is useful if the lambs are drenched before the disease takes serious hold. If used later during the course of the disease, repeated drenchings are necessary. Ostertagia and Trichostrongylus spp. are common in this district but Haemonchus and Moniezia spp. are quite uncommon.

(497b) When weather conditions favour the survival of Haemonchus eggs on pastures, i.e. repeated rains with warm humid conditions, sheep will rapidly pick up heavy infestations which may have serious consequences. Anthelmintics often fail under such conditions because immature worms are untouched as are many adult worms and the oesophageal reflex may not function in perhaps 10% of the sheep. Phenothiazine is a more satisfactory anthelmintic than copper sulphate, but it is necessary to use preventive measures such as rotational grazing as well as treatment.

498-Zeitschrift für Fleisch- und Milchhygiene.

a. KOLBE, F., 1944.-" Neueres über die Trichine VII. Kritischer Übersichtsbericht." 54 (14),

131-133; (15), 141-145. REUTER, F., 1944.—"Einiges über Cysticercus inermis bei französischen Rindern." 54 (16), 158-159.

c. HNOLIK, F., 1944.—"Zur Probenentnahme aus den Zwerchfellpfeilern für die Untersuchung auf Trichinen bei Schweinen." 54 (20), 191–193.
d. RUBERT, B., 1944.—"Stand der Trichinen- und Finnenfunde in Riga." 54 (20), 198–199.
e. SCHOOP, 1944.—"Trichinenbefund bei einer Sumpfmanguste." 55 (1), 3.

(498a) In the seventh of the periodical reviews of Trichinella literature issued by this Zeitschrift, Kolbe again pleads for the retention of the name Trichina, if necessary by changing the name of the unimportant Trichina Meigen, 1830, which at present has priority. For the rest, there follows a brief but useful summary of published papers on Trichinella (most of which have been abstracted in Heiminthological Abstracts) under the headings Biography, Biology, Hosts and Distribution (all in Part 14), Inspection, Legal Decisions, Trichinosis in animals and in man, including diagnosis and treatment (in Part 15).

(498b) Reporting on the inspection of some 40,000 French cattle for Cysticercus bovis, Reuter states that 201 (0.5%) were infested. Of these, 193 were infested in the masseters (177 in the masseters only), 22 in the oesophagus (5 there only), 5 in the tongue (2 there only), B.G.P. and 5 in the heart (I there only).

(498c) Hnolik presents data on the frequency of Trichinella larvae in the diaphragm pillars of pigs, in comparison with other locations.

(498d) Rubert gives comparative data, on the incidence of Trichinella, Cysticercus cellulosae and C. bovis at the Riga slaughterhouse, for the first decade of official inspection (1898-1907) and the decade 1934-1943. In the first decade 4 cases of trichinosis were found

each year on the average, or 0.018% of inspected pigs; in the latter decade, apart from 2 pigs at Riga in 1936, no cases were found in the whole of Latvia. C. cellulosae averaged 1.90% of inspected pigs in the former and 0.041% in the latter decade. C. bovis, however, increased from 0.033% in the former to 0.253% in the latter decade; this is mainly an effect of war (e.g. 1943: 1·18%) which will presumably disappear with the black market.

(498e) Encapsulated Trichinella larvae, with capsules of the rounded type, were found in a marsh mongoose which had lived many years in the Posen Zoo. B.G.P.

499-Zeitschrift für die Gesamte Neurologie und Psychiatrie.

a. ELSAESSER, K. H., 1944.—" Zur Symptomatologie, Diagnostik und Therapie der Hirncysticerkose. Bericht über 8 Erkrankungen und tabellarische Zusammenstellung der Fälle des Schrifttums seit 1910." 177 (3), 323-362.

500-Zeitschrift für Parasitenkunde.

a. MATOFF, K., 1944.—"Über die Möglichkeit der Entwicklung von Trichinella spiralis bei Kaltblütern." 13 (2), 156-176.
b. SZIDAT, L., 1944.—"Weitere Untersuchungen über die Trematodenfauna einheimischer Süsswasserfische. II. Mitteilung. Die Gattung Sphaerostomum (Stiles und Hassall 1898) Looss 1899 und Verwandte." 13 (2), 183-214.
c. DASKALOW, P., 1944.—"Beitrag zur Erforschung der Rinderparafilariose." 13 (3), 254-264.
d. SZIDAT, L., 1944.—"Über die Erhaltungsfähigkeit von Helmintheneiern in Vorund Frühgeschichtlichen Moorleichen." 13 (3), 265-274.

(500a) Matoff has induced light muscular infections with immature Trichinella larvae in toads by means of intramuscular injections of gravid females at 37°C. Attempts to infect them by the normal route were not successful, though when the toads were kept in artificially high temperatures, some males and females developed in the gut but did not produce either sperm or eggs. A similar technique with tortoises resulted in light muscular infections following the oral route as well as the intramuscular route, and these larvae reached the fully-developed infective stage. The so-called natural immunity of cold blooded animals to Trichinella infestations is not absolute, but depends mainly on temperature.

(500b) Szidat shows that the "Sphaerostomum bramae" of cyprinid fresh-water fish from the Kurisches Haff (East Prussia) in fact comprises a number of species, including S. bramae sensu stricto in Abramis spp., S. globiporum in Leuciscus rutilus, S. minor n.sp. (here described and figured) in *Idus melanotus*, and others yet to be described. Also, *Plagioporus* is represented for the first time in Europe by P. occidentalis n.sp. in Gobio fluviatilis. After describing lifehistory experiments on Sphaerostomum spp., Szidat discusses the phylogeny and geographical distribution of the Sphaerostomum group in relation to those of cyprinid and silurid fish.

(500c) Daskalov gives a detailed description of Parafilaria bulgarica n.sp., a widespread infection of the cervical connective tissues of cattle in Bulgaria, and of its pathology and clinical aspects. The scapular, dorsal, thoracic regions and the hindquarters, limbs and knee joint areas may also be invaded. There are yellow-green infiltrations of gelatinous material and small local haemorrhages which constitute a diagnostic sign. Calves and young oxen escape. Infection is highest between 7 and 16 years of age (in cows 11.33%, oxen 19.25% and steers 85.71%). Massive infections are associated with absence of subcutaneous fat.

(500d) This paper is concerned with the antiquity of certain parasitic infections in the light of discoveries made in mummified human bodies, of great age, recovered in the moors of East Prussia. Reference is also made to the presence of Bilharzia ova in the kidneys of Egyptian mummies dated back to 1200 to 1090 B.C., and to a fossil nemathelminth (Gordius tenuifibrosus) from the Middle Eocene. Ascaris and Trichuris ova were easily identified in the gut contents of the body of the "Dröbnitz girl", estimated to be 12 to 14 years old, dug up in East Prussia in 1939, dating back to 600 B.C. In the body of the "Karwinden man", recovered in 1943 and dating back to 500 A.D., ova of Ascaris and Trichuris, the remains of a plant or free-living nematode (? Anguillula terrestris) and some bodies closely resembling the ova of Diphyllobothrium latum were recovered. Thus it appears that helminth ova can be well-preserved and identified after 2,500 years. To Szidat this presence of ova of Diphyllobothrium or Opisthorchis indicates a population of raw fish eaters probably engaged in fishing. The paper is illustrated by photographs of the ova recovered.

S.G.C.

NON-PERIODICAL LITERATURE.

- 501—*ADAMY, W., 1944.—"'Eimeran' als Desinfektionsmittel gegen Askarideneier des Pferdes und Schweines." Dissertation, Hannover.
- 502—*ALIKAEV, V. A., 1944.—[Control of dictyocaulosis in sheep, goats and cattle.] Krasnoyarsk, 11 pp. [In Russian.]
- 503—ANON, 1944.—" Golden nematode of potato—cooperative survey, 1944." Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture, 20 pp.

Full details are given of a survey of 1,480 potato-growing areas in 19 of the northern States, eastwards to North Dakota, carried out in the summer of 1944 and designed to ascertain the distribution of Heterodera rostochiensis. This eelworm was not found once, so that infestation is probably confined to Long Island. The survey incidentally gave other information, however, including: (i) the unexpectedly widespread distribution of H. marioni (in 106 of 262 potatoroot samples submitted); (ii) the polygonum race of H. schachtii in 61 of 66 roots of knotweed; (iii) species of the following (in the number of samples in parenthesis): Pratylenchus (27), Rotylenchus (6), Paratylenchus (9), Tylenchorhynchus (9), Criconematinae (5), Hoplolaimus (1), Tylenchus (4), Xiphinema (21), and Dorylaimus krygeri (10). Some of the forms appear to be new. The counties surveyed are listed and mapped.

- 504—*BASKAKOV, V. P. & PANOVA, L. G., 1944.—[Dictyocaulosis in calves.] Lenizdat, 11 pp. [In Russian.]
- 505— BODDIE, G. F., 1944.—" Diagnostic methods in veterinary medicine." Edinburgh & London, viii+328 pp.
- 506-*FRÖHLICH, D., 1944.-" Versuche mit neuen Bandwurmmitteln." Dissertation, Hannover.
- 507- GELFAND, M., 1944.-" The sick African. A clinical study." Cape Town, 373 pp.

Dr. Gelfand's "Sick African" presents with clarity and breviry the chief clinical manifestations of the common African diseases. Their aetiology, geographical distribution, differential diagnosis and pathology are succinctly set forth. At a time when so much attention is being directed to nutrition as a preventative of disease it is refreshing to find someone who holds that primary infections, e.g. with hookworm, bilharzia, etc., by lowering the vitality of the African, are largely responsible for his nutritional diseases and that the successful treatment of the latter depends on the cure of the former.

R.T.L.

- 508—*HOLLATZ, K., 1944.—" Die Wirkung von Phenothiazin auf die verschiedenen Arten der Pferdestrongyliden." Dissertation, Hannover.
- 509—*KOURÍ, P. & BASNUEVO, J. G., 1944.—"Vademecum de enfermedades parasitarias y tropicales. Tomo I: Tratamientos de las helmintiasis humanas, intestinales y biliares, más frecuentes en Cuba y en el Continente Americano." Habana, 122 pp.
- 510—*LIPPERER, H., 1944.—"'Tetra-Spezial' gegen Strongyliden beim Pferd." Dissertation,
- 511—*MÜHLEIS, D., 1944.—" Untersuchung von Desinfektionsmitteln an Spulwurmeiern und Kokzidienoozysten." Dissertation, Hannover.
- 512-*MÜSSIGGANG, E., 1944.—" Die Wirkung von Verminekrin blau und Vermekrin rotbraun auf die verschiedenen Arten der Pferdestrongyliden." Dissertation, Hannover.

513— POUGET, J. M., 1944.—"La strongylose gastro-intestinale du mouton et de la chèvre. Essais de traitement par la phénothiazine." Thèse, Paris, 90 pp.

Gastrointestinal helminthiasis is a serious disease of sheep in France. The various known remedies are reviewed and the records of 15 experiments are reported. The best results were obtained with 0.2 gm. of phenothiazine per Kg. live-weight in moderate infections and 0.3 gm. per Kg. live-weight in severe cases. Two treatments are advised. It is recommended that the drug be given mixed with sugar-beet pulp. The variability of the results obtained by the author and earlier workers is attributed to the different species of helminths which were present. Phenothiazine is said to stimulate the growth of weak animals and to be equally effective against Trichuris in sheep. No toxic effects were observed even in pregnant animals.

- 514— ROGERS, L. & MEGAW, J. W. D., 1944.—"Tropical medicine." London, 5th edit., x+518 pp.
- 515--*SAHUT, C., 1944.-" Contribution à l'étude des occlusions par ascaris." Thèse, Montpellier.
- 516—*SCHMID, F., 1944.—"Diagnose und Bekämpfung der parasitären Krankheiten unserer Haustiere." Berlin, 4th edit., 259 pp.
- 517—*SCHMIDT, K., 1944.—"Beitrag zur Phenothiazinwirkung beim Geflügel." Dissertation. Hannover.
- 518— SIMMONS, J. S. & GENTZKOW, C. J., 1944.—" Laboratory methods of the United States Army." Philadelphia, 5th edit., 823 pp.
- 519- VANNI, V., 1944.-" Terapia clinica delle malattie da zoo-parassiti dell'uomo." Rome, 256 pp.

INDEXES

							PAGE
Index of	Authors		G 6	• •		 	122
Index of	Subjects		* e		• •	 	127
Corrigend	la	• •		4 4	• •	 10.0	144

NOTE

In all indexes the reference is to the serial numbers and not to the pages. Numbers in bold type indicate abstracts, and numbers in Roman type refer to title-only entries.

In the Author Index there are no cross-references to show joint-authorship, but authors of joint papers are listed individually. Thus, a paper by "Brown, E., Jones, A. & Smith, J." would have three separate entries, "Brown, B.", "Jones, A.", and "Smith, J.".

In the Index of Subjects, alphabetization is under the first word (e.g. "Acer sp." before "Acerina sp."). Under the generic name of a helminth the following order is observed: papers on the genus as such; papers on undefined species; papers on new and defined species, e.g.

Capillaria

— spp.

- aerophila

— amarali n.sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under the name of the parasite or disease.

INDEX OF AUTHORS

(The reference is to the serial numbers: numbers in bold type indicate abstracts.)

Abdalla, A., 394b. Accart, R., 198a. Ackert, J. E., 118bc, 118bd. Ackert, J. E., 1180c, 11 Adam, E., 335a. Adamy, W., 501. Addinall, C. R., 370d. Addis, C. J., 118j. Aguilar, H. D., 436b. Alarotu, H., 319a. Albin, F. E., 55j. Albin, F. E., 55j.
Aleksandrov, N. A., 495g.
Alicata, J. E., 288c.
Alikaev, V. A., 502.
Allen, E., 118x.
Allen, H. C., 292c.
Allen, M. W., 55i, 484b.
Almy, T. P., 225b.
Alonso, L. M., 380b.
Altino, F. 2772. Altino, E., 377a. Altman, I., 28a. Alvarez Crespo, J., 455a, 455b. Alvira Mallen, M., 414a. Amaral, A. D. F. do, 454c. Ameel, D. J., 36a, 36f, 118m, 118bc. Anandalwar, N., 142a. Anderson, D. J., 118n. Anderson, H. H., 370b. Andia, E. D., 469a.
Andrews, G. W. S., 11c.
Andrews, J. S., 6a, 55d.
Angulo, J. J., 151a.
Anon, 2a, 2b, 19a, 19b, 46a, 48a, 62a, 71b, 92b, 92c, 138h, 225c, 298a, 344a, 402a, 503. Aparicio Garrido, J., 244a. Applebaum, I. L., 113b. Aquilar, H., 54a. Arango, E. G., 148a. Ardao, H. A., 9a. Arias Marambio, J., 170a. Asenjo, C. F., 85a. Asquins, P., 474a. Augustine, D. L., 45a. Ault, C. N., 467c. Australia, Council for Scientific and Industrial Research, 266a. Awni, A., 394a. Awny, A. Y., 394d. Axtmayer, J. H., 117b. Ayyar, T. S. V., 24e. Bablet, J., 375a. Babouot, P., 201h. Baer, J. G., 367a, 367b, 494a.

Bablet, J., 375a.
Babouot, P., 201h.
Baer, J. G., 367a, 367b, 494a.
Baila, A. E., 380c.
Bailey, W. C., 155a.
Baker, A. D., 202a.
Baker, D. W., 376a.
Baliga, A. V., 240a.
Bandoni, A. J., 302.
Bangham, R. V., 490a.
Bankoff, G., 234a.
Banks, C. K., 370c.

Barkman, J. J., 403a. Barnes, M. L., 438a. Barnett, L., 47a, 125a, 241f. Barrett, N. R., 196a. Barrett, T. F., 333a. Barrientos, E., 339b. Barros Coelho, 377a. Baskakov, V. P., 495i, 504. Basnuevo, J. G., 276a, 509. Bates, G., 439a.
Baumann, H., 152a.
Baylis, H. A., 89e, 136c, 136d,
182a, 182c, 442a.
Bayon, H. P., 139a.
Bearding, H. F., 297a. Beattie, J., 11a. Beer, J., 40a. Belliappa, A. B., 112c. Belozerova, O. M., 242 1. Belschner, H. G., 3a. Benavente Corral, J., 383a. Benbrook, E. A., 223b. Benbrook, E. A., 223b.
Bendixen, H. C., 406a.
Bercovitz, Z. T., 113e, 176d, 314.
Berkeley, G. H., 443a.
Berman, S., 337b.
Bertelli, J. C., 268a.
Bertelli, L. K. de, 268a.
Bertola, V. J., 473a.
Bezerra Courinho, 451b Bezerra Coutinho, 451b. Bhaduri, N. V., 23a.
Bhalerao, G. D., 142b, 142c,
211b, 221b, 44of, 440j,
440k, 440m, 440n, 440u.
Bhide, B. V., 141a. Bhide, B. V., 141a.
Bieling, C., 10a.
Bijlmer, J., 424a.
Bingham, J. A. W., 195a.
Bingham, M. L., 161a.
Bittencourt, P. V. C., 190a.
Blanco Grande, P., 471a.
Blodgett, E. C., 251a.
Bobrowitz, I. D., 326a.
Boddie, G. F., 505.
Böhmig, F., 351a. Böhmig, F., 351a. Boev, S. N., 495d. Bokil, K. V., 39a. Bondareva, V. I., 495d. Bondareva, V. I., 495d.
Bonilla-Naar, A., 457a, 457b,
457c, 457e, 457f, 457g.
Bonsdorff, B. von, 427a.
Borzone, J. E., 38oc.
Bottini, A. C., 253c.
Bourcart, N., 20ih.
Bovien, P., 306, 496a.
Bowman, K., 28a.
Bovievich, J. 81c. 491c. Bozicevich, J., 81c, 491c. Brackett, S., 118x, 232b. Brady, F. J., 36e. Branson, D. S., 118bc. Branzburg, A. I., 495 1. Bravo Hollis, M., 83a, 83d. Bray, K. S. F., 497a. Brea, M. M., 355b. Brecheisen, A. W., 70a. Brinck, P., 482a.

Britton, J. W., 16a, 30e, 69a, 160a, 467b.
Brocklebank, J. A., 88a.
Broders, jr., A. C., 285a.
Brotto, W., 454a.
Brown, H. W., 113d, 118bq.
Brumpt, L., 364a.
Brumpt, L. C., 476a.
Brunner, M., 28a.
Buechner, H. K., 231a.
Bugge, G., 73a, 73b, 300a.
Bugianishvili, S. M., 242e.
Burhans, R. A., 68a.
Burns, H. C., 30f.
Burt, D. R. R., 204b, 204c.
Busson, A., 432a.
Butt, H. R., 68a.

Cabaliero y C., E., 83b, 83d, 83f, 83g, 83h, 331b, 331c, 331d.
Cable, R. M., 118t.
Cahn, G. S., 269b.
Calcagno, B. N., 355c.
Calhoun, J. B., 121a.
Calzada, V., 330a.
Camacho Baños; I., 271a.
Camponovo, L. E., 302.
Campoell-Begg, R., 154b.
Camponovo, L. E., 302.
Carpanelli, J. B., 269c, 356b.
Carrick, L., 79a.
Carrick, L., 79a.
Carsirghi, J. C., 332b.

Campbell-Begg, R., 154b.
Camponovo, L. E., 302.
Cançado, J. R., 194a, 303, 359a.
Carpanelli, J. B., 269c, 356b.
Carrick, L., 79a. Carrick, L., 79a. Carroll, J., 229a. Casiraghi, J. C., 332b. Casós, G. A., 368b. Cassamagnaghi, jr., A., 330b. Castellanos González, A., 433a. Castro G., J., 275b. Cavandoli, H. E., 467a. Cawston, F. G., 38a, 154a, 410a. Ceballos, A., 253c, 342a. Cerecero D., M. C., 83c, 83d, 331d. 331d.
Cereseto, P. L., 380a.
Chakravarty, G. K., 115a, 440c.
Chamberlin, T. R., 116b.
Chandler, A. C., 118j, 118p, 304.
Cheatum, E. L., 36h, 398a.
Chen, H. T., 118c.
Chen, T. C., 205a.
Chitwood, B. G., 421a.
Choquette, L. P. E., 95a.
Christie, J. R., 55j.
Ciaravino, E., 358a.
Cisneros, A. D., 269b.
Clavel, F., 271b. Clavel, F., 271b. Clayton, E. E., 214a, 250a, 250c. Clearkin, P. A., 203a. Clement, R. L., 421a. Clerc, S., 407b. Coderque, R., 456b. Coffin, D. L., 135b. Coggeshall, L. T., 441a, 491d. Cole, C. L., 70b, 232d, 261a, 261b.

INDEX OF AUTHORS

Collier, H. B., 14a.
Coninck, L. A. P. de, 350a.
Connelly, J. W., 55d.
Coppo, M., 453c.
Cordero, E. H., 178a.
Cordier, 361b.
Cort, W. W., 36a, 36f, 232b, 263a.
Costa, A., 453c.
Coutelen, F., 209a.
Couyet, L., 462b.
Cragg, R. W., 68a.
Cram, E. B., 55a, 140f, 491c.
Crane, C. E., 484a.
Crawshaw, H. A., 296b.
Cross, S. X., 26a.
Crusz, H., 204d.
Cruz, W. O., 417a.
Cubero Orellana, J. M., 271a.
Cuckler, A. C., 288c.
Cuculicchio, C., 462a, 462f.
Culbertson, J. T., 4e, 4f, 61b, 118z, 118bp, 119a, 325a.

Darteveile, E., 179b, 179c, 416a. Daskalow, P., 500c. Davidson, L. R., 396a. Davis, H., 162a. Davis, H. E., 118k. Davis, L. R., 6c. Davis, R. E. 5a.
Davis, W. D., 430a.
Day, L. H., 96a.
Dayal, J., 440a, 440b. Demarest, C. R., 4e, 4f.
Denton, J. F., 140d, 232a.
Deschiens, R., 201b, 201c, 201f, 209b, 209c, 209d, 209e, 360a, 3753, 437a. Desportes, C., 200b. Dévé, F., 336a. Dias, C. B., 417b. Diaz T., M., 342c. Dickie, J. D., 113e. Dickson, J. G., 299a. Díez, C., 456b. Diez Melchor, F., 244a. Di Giacomo, M. P., 225a. Dikmans, G., 106a.
Dimock, A. W., 250d, 372a.
Dinaburg, A. G., 6b, 224c.
Dixon, H. B. F., 262a.
Doetschman, W. H., 65h. Doll, E. R., 30g, 372a. Dollfus, R. P., 200c. Doman, E. R., 398b. Domínguez Rodiño, E., 271a. Donahue, M. A., 177a. Donaldson, A. W., 36b. Dosdall, L., 246a. Dougherty, E. C., 55k, 136a, 140g. Drechsler, C., 131a. Drudge, J. H., 70b, 261a, 261b. Duguid, J. B., 37a.

Earle, K. V., 66c. Eichold, S., 299a. Eigenfeld, D. D., 30a. Einhorn, N. H., 175a. Eizaguirre, E., 456a. Eilenby, C., 132a, 180b. Elsaesser, K. H., 499a. Emmel, M. W., 254a. Endrigkeit, A., 379a, 379g. Engel, R. v., 99a. English, L. L., 116a. Entralgo, A., 408a. Enzie, F. D., 55g, 140e. Erickson, A. B., 177b, 177c, 236a. Escalante, L., 340a. Eveleth, D. F., 104a, 188a, 295b. Ezzat, M. A. E., 365a.

Fackiner, H., 305.
Fairchild, D., 439a.
Fallis, A. M., 94a, 489a.
Farinaud, M. E., 407c.
Farner, D. S., 68c, 186a.
Fassi, F., 198b.
Faust, E. C., 21a, 50a, 219a,
219b, 426b.

Expósito, L., 354a.

219b, 426b.
Favorite, G. O., 386a.
Feria, A. de, 354a.
Fernandes, M. P. de A., 434a.
Fernández Suárez, F. W., 461a.
Ferraris, L. V., 357a.
Ferro-Luzzi, G., 193a.
Fiandra, O., 341a.
Fiedler, H., 379e.
Fielitz, F., 330a.
Figueiredo Cortes, I. de, 451a.

Figueiredo Cortes, J. de, 451a. Figueiredo Magalhães, B., 417b,

477a.
Finger, N. A., 277a.
Firoved, J. W., 220a.
Fleming, A. McK., 102c.
Flynn, P. D., 292b.
Fogel, R. H., 159b, 299a.
Foley, E. J., 20a.
Foss, J. O., 295b.
Foster, A. O., 55e, 55f.
Fournier Villada, R., 433b.
Frank, L. L., 174a.
Frietas, J. F. Teixeira de, 245a.
Fritzsche, K., 10b.
Fröhlich, D., 506.
Fuhrmann, O., 367b.
Fujii. H., 118b.
Fumoux, H., 404a.
Furman, D. P., 6d, 6e.

Gaase, A., 420c.
Gaines, J. G., 214a, 250a.
Galindez, L., 151b.
Gallart-Esquerdo, A., 243a, 413b.
Galofre, E. J., 222a.
Ganslmayer, R., 17a.
García Vázquez, M., 276c.
Garre, E. S., 337b.
Gassner, F. X., 172a.
Gaud, J., 198b.
Gayotto, P., 454a.
Gelfand, M., 507.

Gemmell A. R., 63a. Gentzkow, C. J., 518. George, J. O., 249b. Gerichter, C., 1181. Gifford, R. 104a. Gillain, J., 179a. Ginella, H., 388a. Giovan Battista, N. di, 462g. Glimblat, S., 384a. Gnedina, M., 399a. Góbich, E., 191b, 191c. Goble, F. C., 36h. Gohde, G., 379f. Golde, G., 3771. Goldman, L., 184a. Goldsby, A. I., 188a. Goñalons, G. P., 253a, 337a. Goñi Moreno, I., 58a. González Castro, J., 149a. Gooch, J. M., 72a. Gordadze, G. N., 242a, 242e. Gordon, F. M., 421a. Gordon, H. McL., 497b. Gordon, M. D., 107a. Gorodilova, L. I., 242b, 242m. Gorsse, P., 198a. Goryacheva, L. K., 242h. Gosset, J., 364a. Gould, S. E., 324b. Goycoechea, O. L. de, 18a. Grabó, B., 322a. Graham, R., 30c. Graham, T. W., 214a, 250a. Gram, E., 306. Graña, A., 34a, 54b, 185a, 185b, 185d, 253b, 411a. Gray, A. L., 130a. Green, C. E., 113e. Greenway, D. F., 352a. Grinblat, S., 356d, 464a. Grocott, R. G., 173a. Grosso, A. M., 217a, 217b, 385a. Grüttner, F., 163a. Guhl, R., 152b. Guilhon, J., 360b. Guthrie, J. E., 1182, 118g, 140b. Guzman Centeno, J., 460a.

Habeeb, W. J., 285b.
Habermann, R. T., 55e.
Halawani, A., 394a, 394c.
Hall, H. T. B., 171a.
Hall, M. C., 106a.
Hargrave, D. W., 113e.
Hargreave, W. H., 262a.
Harnisch, O., 422a.
Harnisch, O., 422a.
Harper, J. G. M., 225b.
Harrell, G. T., 80a.
Harris, J. R., 89a.
Harter, L. L., 157a.
Harter, P. H., 79b.
Harwood, P. D., 118a, 118g, 118bh, 140b, 288a.
Hatangdi, M., 41a.
Haviland, J. W., 429a.
Haviland, J. W., 429a.
Hawkins, P. A., 70b, 232d, 239a, 261a, 261b, 295a, 405a, 446a.

Helming, R. B., 223a. Henning, W. L., 227a. Henriques, J., 212b. Herbert, P. H., 11a. Herman, C. M., 12a. Herms, W. B., 259b. Hernández, A. R., 408a. Hernández Morales, F., 260a, 444a. Hickey, M. D., 89a, 89c. Hicks, D. O., 55a. Hill, C. H., 55b. Hill, G. R., 43a. Hnolik, F., 498c. Hoffman, W. A., 117b. Hogarth, W. P., 15a. Hollaender, A., 36d. Hollatz, K., 508. Hollatz, R., 379e. Holman, E., 29a. Holman, H. H., 31b. Holmberg, C., 294a, 400a. Honigberg, B., 288b. Hopp, W. B., 4c. Horne, S. F., 80a. Horneff, J. A., 386a. Howard, A., 108a, 218a. Howe, K., 3b. Hoyman, W. G., 137a. Hsü, S. H., 205b. Hu, S. M. K., 371a. Huarque Falcón, J., 481a. Hudson, E. H., 81a. Hug, E., 436a. Hughes, J. F., 241b. Hull, F. E., 30g, 372b. Hungerford, T. G., 3b. Huntington, jr., R. W., 159b, 299a. Hutter, A. M., 81c.

Ibarra Loring, E., 459a.
Imperial Agricultural Bureaux, 307.
Imperial Bureau of Plant Breeding and Genetics, 74.
Inamdar, N. B., 142c, 440f, 440g. Inclán Sandoval, A., 276c.
Irvine, C., 102d.
Isaicheva, A. I., 242g.
Ivanissevich, O., 355a.
Ivanissevich, O., 355a.
Ivashkin, V. M., 495f.
Iyer, R. P., 440d.

Jacks, H., 248a.
Jacobs, L., 144a.
Jaffé, R., 470a.
Jansen, G., 128a, 128c.
Jenkins, W. A., 138d.
Jenovese, J. F., 425a.
Jensen, J. K., 492a.
Jiménez, J. M., 460a.
Job, T. J., 109a.
Johnston, P. A. G., 292d.
Johnston, T. H., 289a, 289c, 289d.
Jones, A. W., 65c, 65d.
Jones, F. G. W., 180a.

Jones, M., 140f. Jones, M. F., 36d. Joseph, R., 364b. Joyeux, C., 494a. Junius, E., 308.

Kamalov, N. G., 242a.
Kamalova, A. N., 242e.
Kammer, V., 102b.
Kammiade, W. G., 6g.
Kapoor, R. N., 440m.
Kark, S. L., 64a.
Kartagener, M., 479a.
Karve, J. N., 56a.
Kates, K. C., 6f.
Kauffman, W., 6a.
Kaura, R. L., 390a.
Kaw, B. L., 142d.
Kenknight, G., 363a.
Kevorkov, N. P., 242c, 242d.
Khalil, M., 394a.
King, B. G., 176b.
Kline, E. E., 70b, 232d, 239a, 261a, 261b, 323a.
Knights, H. T., 134b.
Knott, J. I., 290a.
Koen, J. S., 135a.
Kolbe, F., 73c, 498a.
Komienko, Z. P., 495k.
Kourí, P., 151a, 276a, 276b, 509.
Koutz, F. R., 30d.
Krakower, C., 117b.
Krastin, N. I., 495f, 495h.
Kreis, H. A., 169a, 280a, 347a.
Kung, C. C., 283a.
Kuntz, R. E., 258a.

Laborit, H., 320a.
Laederich, 364a.
Lal, M. B., 98a.
Lamy, L., 209c, 209d.
Lancaster, H. O., 42a, 241c.
Lane, C., 124a.
Larios, I., 33e, 331a.
Larsen, N. P., 387a.
Larsh, ir., J. E., 4a, 4b, 36b, 36c, 118bf.
Laser, H., 189a.
Lastres, J. B., 384b.
Lathrop, G. E., 324c.
Latienda, R. I., 269c, 356b.
Laurent, P. Y., 309, 432a.
Lavier, G., 201e, 364b. 476a.
Laviopierre, M., 64b.
Lavisse, J., 356c.
Lawrence, D. A., 281a.
Lawton, A. H., 36e, 491b.
Leão, A. T., 449a.
Lear, B., 250b.
Le Gall, R., 366a.
Leikina, E. S., 242k.
Leiper, R. T., 218b.
Lelong, M., 364b.
Leonard, O. A., 226a.
Le Riche, H., 64a.
Le Roy, 201h.
Lever, R. J. A. W., 77a.
Lipperer, H., 510.

Litunovskaya, M. N., 2421.
Lo Gullo, O., 481b.
Longley, L. E., 246a.
Longo, O. F., 253d.
Lopes de Faria, J., 477a.
López-Neyra, C. R., 458a, 458b.
Lorenzo Fernández, T., 456c.
Lowe, T. E., 42a, 241c, 241d.
Lozand, E. W., 68b.
Lozada del Rio, G., 466a.
Lozano, D., 269d.
Lozano Hube, E., 150a.
Lucker, J. T., 118w.
Lukey, E. J., 187a.
Luttermoser, G. W., 118bk.
Lynch, W. F., 65g.

McBeth, C. W., 255a.
McCulloch, E. C., 447a.
McDonald, ir., S., 195a.
Macfarlane, W. V., 134a.
MacGregor, G. A., 102a.
McIntosh, A., 93a, 118u.
Mack, ir., G. E., 14a.
McLean, R. A., 118t.
McMahon, E., 229a.
McMahon, S., 397a.
McMullen, D. B., 118bh.
McNaught, J. B., 324a.
McRobert, G. R., 110a.
Magdalena, A., 151b.
Mainetti, J. M., 462a, 462b, 462e,
462f, 462g.
Manter, H. W., 123a.

462f, 462g.

Manter, H. W., 123a.

Mantilla, L. R., 191b, 191c.

Manuel y Piniés, L., 412a.

Mao, C. P., 205a, 205c.

Maplestone, P. A., 241a.

Maqsood, M., 24a, 24d, 24f.

Maraventano, L. W., 118e.

Marcoux, H., 401a.

Mariani-Tosatn, G., 355b.

Markevich, A. P., 239a.

Markworth, 378b.

Marneffe, H., 201g.

Marsh, H., 419a.

Martin, A. R., 97a.

Martin, R., 201h.

Martin, W. E., 118f, 158a.

Martinez, F., 355b.

Martinez Campos, C., 170c.

Martinez L. de G., F., 453a.

Martini H., J., 459b.

Martini Herrera, J., 275a.

Masilungen, V. A., 435a.

Masters, A. M., 387a.

Matoff, K., 500a.

Mawson, P. M., 289a.

Mayer, R. A., 225a.

Mayhew, R. L., 118be, 140a,

210a.

Mazzotti, L., 60a. 150a, 273a.

Mazzotti, L., 60a, 150a, 273a, 273b, 273c, 273d, 475a. Médici, F. A., 329a. Megaw, J. W. D., 514. Mehta, S. U., 39a. Meillon, B. de, 64b.

INDEX OF AUTHORS

Meira, J. A., 389c, 480a. Meleney, H. E., 5a, 247a. Melo, M. J., 382a. Mena Brito, M. A., 353c. Mendoza, D., 341a. Menezes, H., 451b, 463a. Menon, T. B., 66b. Michael, P., 292a. Miller, A., 426a. Miller, J. F., 175a. Miller, jr., J. J., 159a. Miller, M. H., 199a. Miller, R. B., 445a. Miller, R. F., 30e, 282a, 467b. Millert, R. P., 30e, 202a, 4070.
Millett, J., 91a.
Minckler, D., 156a.
Mitskevich, V. Y., 495i.
Mitton, R. L., 33a, 228a, 329a.
Mizelle, J. D., 177a.
Mönnig, H. O., 120a, 215a, 284a. Mohan, R. N., 390c. Mohr, J. L., 82a. Møller, J., 492b. Molley, E., 118bp. Montilla, E., 143a. Morehouse, N. F., 25a. Morell, G., 279a. Morenas, L., 404a, 404b. Morgan, B. B., 186a, 490b. Morgan, D. O., 296a. Mountjoy, S. A., 393b. Mozley, A., 310.

Mudaliar, S. V., 440 l.

Mühleis, D., 511.

Müssiggang, E., 379e, 512.

Mukerji, A. K., 23a, 390c.

Mumford, E. P., 82a,

Murdock, J. R. 81b. Murdock, J. R., 81b. Murphy, F. D., 78a. Murray-Lyon, R. M., 66a.

Nana, A., 335a.
Napier, L. E., 127a, 491a.
Narayan, A., 334a.
Nargund, K. S., 39a, 141a
National Veterinary Medical
Association, 164, 165.
Nattrass, R. M., 101a.
Nauss, R. W., 75.
Neghme R., A., 349a.
Netteli F., R., 126a.
Neumann, H., 122a.
Neumann, H., 122a.
Neumayer, E. M., 118w.
Newhall, A. G., 250b.
Newton, L. G., 264a.
Newton, L. G., 264a.
Newton, W. L., 118y.
Nigrelli, R. F., 118e.
Niño, F. L., 191a, 212d.
Noguera Toledo, J., 383a.
Nor-El-Din, G., 394a, 394c.
Noronha Péres, J., 270a.
Norup, E. B., 486a.
Nouvel, J., 200a, 360c.

O'Connor, N., 89d. Oehninger, C., 185a. Ogilvie, A. C., 11c. Oldham, J. N., 31a.
Oliva, F. F., 481b.
Olivares, L., 373a.
Oliver-González, J., 35a, 117a, 118ba, 143a, 176d, 444b.
Olivier, L., 36a, 36g, 232b.
Olmedo, F. A., 253d.
Olsen, O. W., 118bg, 160c, 224b, 311.
Orjuela Navarrete, J. E., 272a.
Orlov, I. V., 495e.
Osborne, C., 450a.
Osorio, M. T., 60a.
Otto, G. F., 118x.
Oxenius, K., 420b.
Ozerskaya, V. N., 495b, 495j.

Pacheco-Luna, R., 431a. Paiva, P., 84a. Pakenham-Walsh, R., 124b. Pallaske, G., 17b. Palmer, E. D., 176a. Panova, L. G., 495i, 504. Paranjape, K. D., 141a. Parisi, J. M., 269b. Paussa Trujillo, J., 433a. Pavlov, P., 379b. Pedace, E. A., 332b. Pelevin, V. K., 495k. Pennoit-De-Cooman, E., 423a. Pereira Barretto, M., 454c. Pérez Vigueras, I., 472a, 472b. Peterson, E. H., 6g. Petherbridge, F. R., 180a. Petrov, A. M., 495c. Phalnikar, N. L., 141a, 235a. Pierangeli, E., 267a. Pierson, P., 29a. Pilar, O. L. F. do, 468a. Pimenta de Mello, R., 417a. Piña Daza, M., 86a. Pina Daza, M., 86a.
Pinckard, J. A., 216a, 226a.
Pinto, C., 245b, 312.
Piulacins, P., 59b, 413a, 414a.
Pliskin, R. R., 129a.
Plotnikov, N. N., 242f.
Potyapolskaya, V. P., 242g.
Pötyachke-Schneider, E., 313. Poirier, M., 201a, 201d. Pollak, L., 470b, 470c. Polley, T. Z., 78a. Pollitzer, G., 329a. Polovetskaya, A. A., 242a. Porter, W. B., 285a. Potemkina, V. A., 208b, 208c. Potenza, L., 278a. Pou, M. C., 330a. Pouget, J. M., 513. Prado Vertiz, A., 353b. Prat, D., 84a, 84b, 84c, 185e. Pratt, C. K., 444b. Prable, N. A., 288a.
Price, E. W., 118u.
Prieto, C., 217a, 217b, 385a.
Priouzeau, M., 360b.
Prudhoe, S., 7a, 182b. Pursell Ménguez, A., 456c.

Queen, F. B., 333a. Quinlan, J. B., 233a. Quintana, P. de la, 471a. Quiroga, P., 212a. Quortrup, E. R., 30b. Qurashi, S. H., 390b.

Rachet, J., 432a. Radeleff, R. D., 295c. Raeder, J. M., 197a. Raju, P. M., 8a. Ramamurti, B., 66b. Ramey, W. O., 249a. Ramirez, J., 475a. Ramos, jr., J., 389c. Randall, R., 92a. Rankin, jr., J. S., 65a, 65f. Ransmeier, J. C., 409a. Rao, B. Madhava, 24c, 112b. Rao, B. Mohan, 112a. Rao, D. S., 66b. Rao, G. S. R., 142a. Rao, K. S., 24b.
Rao, N. S. K., 142b, 440j.
Rao, P. R., 8a.
Raschke, O., 348a.
Rasmussen, D. I., 398b. Ratcliffe, H. L., 153a. Rau, S. A., 252a. Rees, G., 51b. Rees-Mogg, G., 161b. Reid, W. M., 118bb. Reik, R., 145a, 145b, 145c. Reinhard, E. G., 118i. Reimann, H. A., 257a. Reller, H., 118v.
Reller, H., 118v.
Reuter, F., 498b.
Reyes, E., 339a.
Reyes Walker, A., 337b.
Richardson, J. K., 443a.
Riedel, B. B., 118bc. Rioseco G., E., 342b. Rivas, C. I., 87a, 191b, 191c, 191d, 212c, 269a, 356a, 381a. Rivero, E., 267a. Riveros Sosa, H. R., 368a. Roberts, J. I., 213a. Robles, C., 353a. Rodhain, J., 179a. Rodríguez, A., 388a. Rodríguez-Molina, R., 113e. Roebuck, A., 487a. Rof Carballo, J., 271b. Roger, H., 407a. Rogers, L., 514. Rogers, W. P., 136b. Rolle, M., 379d. Romeo Orbegozo, J. M., 59a. Rosa, M. A. de, 481b. Rosa, W. A., 222a. Rose, H. M., 4e, 4f, 61b, 118z, 118bp, 119a. Rosenberger, A. C., 362a, 379c. Rosin, I. R., 207a. Ross, E. L., 118q, 232c. Rubert, B., 498d. Rubin, S. S., 113a.

Ruiz, J. M., 147a. Ruiz R., F., 192a.

Sacramento, W., 454a, 454b. Sáenz Canales, J., 338b. Sahut, C., 515. Sala-Patau, E., 59b. Salm, G., 198b. Sampaio, J. M., 346a. Sampson, J., 30c. Sanabria, A., 278a. Sánchez Cózar, J., 415a. Sandars, D. F., 289b. Santos, G., 389a, 389b. Santos, F. dos, 327a. Santos Zetina, F., 465a. Sarles, M. P., 287a. Sarmento, A., 328a. Sarwar, M. M., 221a, 440h, 440i. Sautet, J., 201g. Schlesinger, C. J., 30a. Schmid, F., 379e, 516. Schmid, G., 478a. Schmidt, K., 517. Schnelle, G. B., 92d. Schönberg, F., 163b. Schoop, 498e. Schüffner, W., 301a, 420a. Schuurmans Stekhoven, jr., J. H., 318a, 318b Schwartz, B., 118br. Schwetz, J., 179b, 179c, 416a. Scodeller, J. A., 332a. Scott, J. A., 314.
Scott, J. G., 11b.
Scott, R. W., 430a.
Seibert, H. C., 158b.
Seitner, P. G., 118s.
Self, J. T., 258a. Self, J. T., 258a.
Sellek Azzi, A., 276c.
Semenova, N. E., 242o.
Senepart, J., 337b.
Shah, M. M., 235a.
Shah, T. M., 8b.
Shaker, M., 394c.
Shaw, J. L., 409a.
Shaw, J. L., 409a.
Shaw, J. N., 286a.
Shaw, K. J., 214a, 250a.
Sheppard, E. M., 37a.
Sherbakoff, C. D., 138i.
Shew, W. D., 393a.
Shigley, J. F., 227a. Shigley, J. F., 227a. Shikhobalova, N. P., 242m. Shleikher, E., 242c. Shorb, D. A., 27a, 224a. Shumeiko, A. I., 242n. Silveira, J., 146a. Simmons, J. S., 518. Simpfendorfer S., E., 453b. Simpson, E. R., 289c, 289d. Simpson, W. F., 361. Singh, B., 111a. Sisk, W. N., 49a. Skryabin, K. I., 208d, 208e, 495 Skvortsov, A. A., 242f. Sleith, F. St. G., 32a. Sloan, J. E. N., 296a.

Slowey, J. F., 181a. Smirnov, G. G., 208a. Smith, R. H., 398a. Smith, T. E., 214a, 250a. Smith, V. S., 118bi, 118bj. Smyth, J. D., 43a. Soares, T. L., 76a. Sofia, F., 358a. Solari, L. A., 38oc. Soldatova, A. P., 374b. Sonnenschein, C., 378a. Soricelli, F., 358c. Sotolongo, F., 340a. Spindler, L. A., 55b, 55c, 118bo, 140c. Spühler, O., 479a. Srivastava, H. D., 440e, 440o, 440p, 440q, 440r, 440s, 440t. 440t.
Stark, jr., F. L., 250b.
Steele, C. W., 11a.
Stefanopoulo, G., 201e.
Stephenson, W., 51a.
Stewart, J., 31b.
Stewart, M. A., 259a.
Stewart, W. E., 391a.
Stewart, W. L., 57a.
Steyn, H. P., 233a.
Stöckli, A., 238a.
Strobino. L. E., 217a Strobino, L. E., 217a, 217b, 385a. Stuckey, H. P., 483a. Stunkard, H. W., 65g, 488a. Suárez, R. M., 444a. Sudheimer, R. L., 30b. Suessenguth, H., 323a. Suiffet, W., 343a. Sureau, B., 201h. Surra Canard, R. de, 448a. Sutherland, A. K., 145a, 145b, Swales, W. E., 95a, 369a. Swanson, L. E., 114a. Sweeney, J. S., 333a. Swellengrebel, N. H., 301a. Szidat, L., 500b, 500d. Tagle V., I., 452a. Taiana, J. A., 87b, 355a. Talice, R. V., 185c, 274a, 315. Tamm, O., 316.

Tagle V., I., 452a.
Taiana, J. A., 87b, 355a.
Talice, R. V., 185c, 274a, 315.
Tamm, O., 316.
Tavares, L., 345a, 451b, 463a.
Taylor, A. L., 52a, 52b, 52c, 52d, 138a, 138b, 138e, 138f, 138g, 138j, 255a.
Taylor, C. F., 138c.
Taylor, E. L., 43b, 62b, 71a, 103a.
Téllez, O., 317.
Teyssier, 364a.
Thapar, G. S., 211a.
Thomas, D., 196a.
Thomas, W. E., 160b.
Thorne, G., 55i.
Thorning, W. M., 30c.
Thorp, jr., F., 405a.
Thorp, W. T. S., 48b, 90a, 227a.
Threlkeld, W. L., 118r.

Todd, A. C., 65e, 118o.
Tötterman, G., 1a, 168a, 168b,
168c.
Tomlinson, W. J., 173a.
Torres Estrada, A., 338a.
Travassos, L., 128b, 418a.
Trim, A. R., 51c.
Trivedi, J. J., 39a.
Tsuchiya, H., 118v.
Tubangui, M., 435a.
Tufts, W. P., 96a.
Turnbull, H. H., 241e.
Turner, E. L., 237a.
Tsutsunava, T. N., 242a.
Tyler, J., 206a.

Ubach, F., 462c. Überreiter, O., 100a. Unchalo, D., 462a, 462d. United States Bureau of Animal Industry, 265a, 265b. Unsworth, K., 89b, 183a. Urbain, A., 360c. Uribe-Piedrahita, C., 457d. Urrutia, J. M., 357a. Uya Beso, F., 383a.

Vaccarezza, R. F., 329a.
Vacheron, C., 404a.
Van Cleave, H. J.. 118q, 232c.
Van Grembergen, G., 423a.
Vanni, V., 519.
Van Volkenberg, H. L., 118bh.
Vargas Zalazar, R., 342d.
Vasilkova, Z. G., 242i.
Vavilova, M. P., 242d.
Vazquez Paussa, A., 276c, 433a.
Velu, H., 361a.
Venner, R. B., 292e.
Verney, R. E., 53a.
Vesalio Guzman, A., 460a.
Videla, C. A., 332a, 332b.
Vinnitzky, I. M., 374a.
Vogelsang, E., 278a.
Von Brand, T., 36i, 55h.
Von Hofe, F. H., 113c.
Vose, L. O., 44a.
Vrat Nigam, V., 493a, 493b.

Walton, A. C., 118bl, 118bm, 118bn, 144a.

Wartman, W. B., 176c.

Watson, J. R., 256a.

Watt, J. Y. C., 4d.

Webb, R. J., 6g.

Webster, J. D., 65b.

Wechtel, C., 11a.

Weerekoon, A. C. J., 204a.

Westwater, J. O., 321a.

Wexberg, L. E., 113b.

White, E. G., 31a.

White, F. M., 67a.

Whitehill, R., 199a.

Whitehouse, W. E., 170b.

Whitten, L. K., 133a, 187a.

Wightman, R., 105a.

Widik, R., 485a.

Wilbur, D. L., 159a.
Wilcocks, C., 291a.
Williamson, K., 428a.
Willman, J. P., 376a.
Wilson, J. F., 230a.
Wisseman, jr., C. L., 118bd.
Witenberg, G., 118d, 1181, 157a.
Weed, J., 395a.

Worthen, T. W., 425a. Wright, F. J., 213a. Wright, W. H., 61a, 106a, 81b, 118y, 140f, 144a, 370a. Wu, H. M., 283a.

Yetwin, I. J., 118h, 166. Young, C. T., 387a. Young, R. M., 92d. Yu, N. G., 205c.

Zanalda, D. M., 337a.
Zaumeyer, W. J., 157a.
Zerboni, E., 9a.
Zimmerman, jr., H. E., 55b,
118bo, 140c.

I18bo, 140c. Zottner, G., 361a. Zweifel, E., 22a.

INDEX OF SUBJECTS

(The reference is to the serial numbers: numbers in bold type indicate abstracts.)

Abyssinia, see also East Africa. -, cestodes in mammals & birds 367b. Acanthocephalus hastae n.sp. in fishes 182a. Acanthocheilorema to Dipetalonema 245a. Acridotheres tristis, Hymenolepis n.sp. in 204c. Actinocleidus gibbosus n.sp. 177a. - incus n.sp. 177a. - recurvatus n.sp. 1772. - scapularis n.sp. 1772. - sigmoideus n.sp. 1772. Acuaria pavonis to A. hamulosa 440j. Aëdes, see also Mosquitoes - variegatus, transmitter of filariasis, recorded in Fiji 77a. Africa, see also East Africa, North Africa, South Africa, West Africa. -, helminthiasis in man 507. Africana mabuyae n.sp. in Mabuya carinata 115a. Agamodistomum suis in Rana fusca 73a. Alaeuris brachylophi n.sp. in Brachylophus fasciatus 289a. Allechinostomum to Echinochasmus 7a. Allometorchis n.g. for Parametorchis spp. 367a. Amnicola limosa, 1st intermediary for Metorchis conjunctus 13a. Amoebotaeria sphenoides, specific diagnosis 390a. Amphacanthus javus, Hexangium n.sp. in 435a. Amphibians, see also Bufo, Rana. -, filariids in 118 1. -, heiminths in 258a. Anaemia, cestode 1a. -, Diphyllobothrium 168a, 168b, 168c. —, hookworm 102a, 148a, 242a, 394b, 417a. -, pernicious, & helminths 427a. -, schistosome 394d. Ancylostoma braziliense & creeping eruption in man 64b. - caninum in Euphractus sexcinctus 245b. - mar in Brazil 454c. - duodenale in man, life-history 457c. Ancylostomiasis, see also Creeping eruption, Hockworm. - in dog 382a. -, eosinophilia in 476a. - & haematuria in man 162a. - in man 130a. — — in East Africa 102b, 102c.

_ __ , treatment 241a.

-, treatment for erythema in man 364a.

——— in Pacific 42a.

Angola, Schistosomiasis haematobia 328a. Anguillulina spp. in Buxus sempervirens 138c. — — plants in U.S.A. 138d. — aberrans to Nacobbus aberrans n.comb. 55i. - dipsaci in clover 492b. — — narcissus bulbs, treatment 395a. --- potato in Britain 487a. - similis (?) in sugar-cane in Colombia 272a. Anhinga melanogaster, Petasiger n.sp. in 493a. Animals, see also Mammals, Vertebrates.

—, domestic, filariasis in 24b. —, —, helminthiasis in 161a, 312, 505.
—, —, helminthiasis in 161a, 312, 505.
—, —, helminthis in 19a, 19b, 48a, 71a, 71b, 118br, 120a, 133a, 215a, 221b, 254a, 265a, 265b, 281a, 293a, 305, 307, 495b, 516. —, —, hydatidosis in 279a. -, -, liver-fluke disease in 17a, 24c.
-, -, phenothiazine 120a, 133a, 254a.
-, -, technique for examining intestines of 6c. -, fur-bearing, helminths in 172a. —, helminths in 211a. —, laboratory, Schistosoma mansoni in 491c. —, nematodes in 318b. Anniella pulchra, Oochoristica n.sp. in 65g. Anonchotaenia castellanii n.sp. in Eurocephalus rüppeli 367b. Anoplocephalidae, life-histories 488a. Anthelmintics, "Acranil" 191a. -, Allegan 379a, 379d, 379g. -, ammonium compounds 140b. -, amphetamine sulphate as adjuvant 447a. -, anthiomaline 113d. -, arecolin 379d. —, — hydrobromide 277a. —, arsenates 266a. —, arsenites 266a. -, ascaridol 453b. -, basic fuchsin 201b. -, "butylphen" 140e. -, butyrolactones 39a. -, carbon disulphide 485a. -, - tetrachloride 11a, 24c, 281a, 379g, 461a, 485a. -, chenopodium oil 461a. -, chlorinated hydrocarbons 379d. -, " Ciff " 485a. --, copper & nicotine sulphates 30e, 97a, 161b, 261a, 296b, 467b.
--, -- sulphate 495j. -, crystal violet 309, 432a. -, Dover's powder 249b.

-, emetin 468a.

Argentina, hydatid 380a. Anthelmintics, enzymatic 85a. -, Hymenolepis diminuta 352a. —, evaluation of 370b. -, Nematodirus spp. 467c. -, Ficus glabrata latex 303. -, strongyles in horse 222a. —, Fouadin 113a, 230a. —, gentian violet 49a, 260a. -, Syngamus trachea 385a. - given without purgatives 354a. Artemisia vulgaris decoction, in vitro effect on -, hexachlorethane 118bg, 160c, 286a, 311. nematode larvae 201c. Ascariasis & asthma in man 66c. -, hexylresorcinol 51c, 136b, 454a, 454b. - - cholecystitis in man 337b. -, Igitol 24c. -, Jaracatia dodecaphylla latex 359a. — in horse 10a. - & hypoglycaemia in man 174a. -, Kachexid 379e. -, intestinal obstruction, X-ray diagnosis 413b. -, lactones 235a - in man 9a, 59b, 102d, 152a, 152b, 212b, 243a, -, lead arsenate 295c. -, leche de higueron 461a. 413a. — — —, atypical 334a.
— — simulating appendicitis 242o.
— — —, skin tests 22a.
— — —, treatment 378a. -, male fern 194a, 242g. -, methylene blue 124b. -, neostam 61b, 118bp, 119a. -, neostibosan 118bp, 119a. Ascarid in dog, prenatal infection 72a. -, new, for cestodes 506. -, nicotine-bentonite 118a. - larvae in fishes, nomenclature 136c. -, - sulphate 264a. - ova, disinfection methods 511. -, paraffin 495i. --- of horses & pigs, disinfection by "Eimeran" -, perthiocyanic acid 55g. 501. -, phenothiazine 3b, 6g, 14a, 30c, 30e, 48a, 48b, Ascaridia galli in fowl, effect of soya meal on 49a, 55d, 55e, 57a, 62a, 62b, 69a, 70a, 90a, immunity 118bc. 97a, 114a, 118a, 118g, 120a, 133a, 145c, 160a, 170c, 227a, 254a, 261a, 261b, 266a, 282a, 295a, 305, 316, 360b, 376a, 379c, 379e, -, host starvation & glycogen 118bb. - sinensis n.sp. in fowl 283a. Ascarids in body cavity, host reactions 374a. Ascaris in abdominal wall 327a. 392a, 406a, 419a, 446a, 467b, 478a, 497b, 508, 513, 517. —, — (assay) 391a. antigen, sensitivity of dog to 28a.
larvae & 'milk spot liver' in pig 31a.
in liver of man, fatal case 364b. -, - & related compounds 447a. -, pilocarpin 379d. - & Loeffler's syndrome in man 474a, 479a. -, prickly ash bark 118g. - in man, migration 434a. -, propamidine 154a. — —, occlusions 515. -, pyrethrins 361a. - ova, effect of sunlight on 242m. -, recent advances 436a. - polysaccharide inhibiting iso-agglutination 35a. -, stibophen 394a. — & tubercular antigens, interaction 470c. -, sulphonamide compounds 45a. - lumbricoides in Euphractus sexcinctus 245b. —, summary 370c, 370d. —, tartar emetic 112a. — — — guinea-pig, acquired immunity 94a. — — —, immunity 489a. -, tetrachlorethylene 30e, 136b, 261b, 467b. -, metabolism 189a. -, "Tetraspezial" 510. - - ova, effect of sewage treatment 55a. -, thionol 389a. — — in pig in Canada 95a. -, tin oleate 140b. ---, polysaccharide 143a. -, triphenylmethane derivatives, see also ---, in vitro testing of hexylresorcinol against Anthelmintics: basic fuchsin, crystal violet, 51c. gentian violet. Ascarophis australis n.sp. in Threpterius maculosus - 201b, 201f, 209b, 209c, 209d, 209e, 289a. 360a, 375a, 407c, 437a. Atractis cruciata valid 83f. -, "Verminekrin" 379e, 512. - granulosa to A. fasciata 83f. - in wartime 370a. - impura n.sp. in Gopherus polyphemus 83f. Antigone antigone, Petasiger n.sp. in 493a. — morinae to A. fasciata 83f. Apharyngostrigea duboisi n.sp. in Butorides Australasia, see also Australia, New Zealand. virescens 472a. nematodes 289a. - gundlachi n.sp. in Ixobrychus exilis 472a. Australia, see also Australasia.

—, cercariae 289d. - insulae n.sp. in Florida caerulea 472a. Aphelenchoides ritzema-bosi in chrysanthemum -, Fasciola hepatica 228a, 393a. -, Haemonchus 497b. ---, control with sodium selenate 250d. -, helminths in sheep 33a, 393b. Appendicitis & Enterobius 356b. -, Microcotylidae 289b. Aquila chrysaetus, Neodiplostomum paraspathula -, Nematodirus disease 497b. in 83b. Australorbis centrimetralis & A. olivaceus distinct Arctium minus, Heterodera marioni in 202a. 128c. Argentina, Dioctophyme renale 217a. — —, control by slaked lime 128a. -, Filariasis bancrofti 481b. - glabratus, control 118bk. -, helminths in game 467a. -, - man 481a. Bahamas, Dirofilaria immitis 30f.

Bashkirovitrema n.g. for Echinostoma incrassatum Bean, Heterodera marioni in 157a. Belascaris, see Toxocara. Belgian Congo, free-living eelworms 318a. ---, nematodes in animals 318b. ---, Onchocerca gibsoni 179a. ——, Schistosoma mansoni 416a.
——, schistosome intermediaries 179b, 179c. Bhalfilaria badamii n.g., n.sp. in fowl 142b, 440j. Bilharzia, see Schistosoma. Bionomics, Ascaris lumbricoides ova 55a. -, Cercaria clausii 118t --, Direfilaria immitis 92d. —, Eustrongylides ignotus larvae 361. —, filariae 121a. -, Haemonchus contortus larvae 6b. __, __ ova 224a. __, __ & larvae 27a, 224c. -, Hetcrodera rostochiensis 180b. -, hookworm larvae 208a. —, Macracanthorhynchus hirudinaceus 6f. -, nematode larvae 232d. -, - ova 36d. -, Ostertagia circumcincta larvae 6d, 6e. oxyurid ova 201f. Birds, cestodes in 367b. -, Collyrichum faba in 186a. -, Echinostomatidae in 472b. -, Strigeidae in 472a. -, Syngamus trachea in 36g, 385a. Blarina brevicauda, Diorchis n.sp. in 65c. Bovines, see also Cattle. -, Paramphistomum explanatum in 440p. -, strongylosis of liver in 440t. Brachydistomum n.g. 418a. Brachylophus fasciatus, Alaeuris n.sp. in 289a. Brazil, Ancylostoma caninum 454c. -, helminths in man 245b, 451a. -, - vertebrates 128b. -, Renifer heterocoelium 449a. -, Schistosoma mansoni 245b. —, Schistosomiasis mansoni 128a, 417b. —, Tylenchulus semi-penetrans 190a. Breinlia valid 245a. Britain, see also British Isles.

—, Anguillulina dipsaci 487a. —, Diphyllobothrium sp. 37a, 183a. —, helminths in sheep 296a. -, Heterodera marioni 487a. —, — rostochiensis 487a. —, — schachtii 180a.

Bunostomum trigonocephalum in cattle, experimental percutaneous infection 118w. Butorides virescens, Apharyngostrigea n.sp. in 472a. --- , Posthodiplostomum n.sp. in 472a. Buxus sempervirens, Anguillulina spp. in 138c. Callichrous bimaculatus, Neopodocotyle n.g., n.sp. Camallanus baylisi, morphology 56a. Campeloma sp., Cercaria n.sp. in 118n. Canaania obesa n.g., n.sp. 418a. Canada, Ascaris lumbricoides 952 -, Heterodera marioni 202a, 443a. -, - schachtii 202a. -, Triaenophorus crassus 445a. Cancer & Schistosomiasis mansoni in man 477a. Canidae, helminths in 177c. Canis latrans, Mesocestoides n.sp. in 118p.

— occidentalis, Dirofilaria immitis in 135b.
Capillaria caudinflata, life-history 25a.

— lepidopodis n.sp. in Lepidopus caudatus 289a.

— strigis n.sp. in Ninox novaeseelandiae 289a. Capra ibex, Oxyuris n.sp. in 280a. Capromys pilorides, Coenurus serialis in 151a. Capsularia marina, nomenclature 136c. Caracal caracal, Trichinella in 495k. Carnivores, *Physaloptera* spp. in 490b. Carollia perspicillata, Litomosoides n.sp. in 331c. Carrot, Heterodera marioni in 251a. Casoni reaction, histology 332b. Castor canadensis, helminths in 177b. Cat, Clinostomum sp. in 112c.

—, helminths in 30d. Catenotaenia pusilla in mice, life-history 494a. Catostomus commersonii, 2nd intermediary for Metorchis conjunctus 13a. Cattle, see also Bovines, Ruminants. —, Bunostomum trigonocephalum in 118w. —, Carbon tetrachloride 24c, 281a. -, Cotylophoron spp. larvae in 440n. -, Cysticercus bovis in 379b, 498b, 498d. -, dictyocauliasis in 504. -, Dictyocaulus in 399a, 495h. -, Fasciola hepatica in 118bg, 286a, 311. -, Haemonchus contortus in 140a, 210a. - helminthiasis in 390a. -, helminths in 70a, 145a, 405a. -, hexachlorethane & bentonite 118bg, 160c, 286a, 311. —, hydatid in 24a, 24f. —, Igitol 24c. -, liver-fluke disease in 160c, 163a. -, lungworm disease in 2a. -, nematode larvae in 118be. —, nematodes in 363a. -, Nematodirus spp. in 467c. -, Parafilaria n.sp. in 500c. -, Paramphistomum n.sp. in 118u. -, - cervi in 24d. —, phenothiazine 70a, 160a, 360b. -, Schistosoma spindale in 112a. -, stomach worm disease in 16a, 223a. —, — worms in 160a. -, tartar emetic 112a. · Central America, see Guatemala, Mexico, Salvador. Cephalotrema minutus n.g., n.sp. in Neomys fodiens

-, Mermis nigrescens 136d.

Buffalo, see also Ruminants.

-, Cysticercus bovis in 379b.

Bufo, see also Amphibians, Toad.

- arenarum, Glypthelmins n.sp. in 178a.

— —, Gordiidae 442a.

British Isles, see also Britain, Ireland.

— —, Diphyllobothrium sp. 89a, 89b, 89c, 89e.

— himalayanum, Cosmocercoides n.sp. in 56a.

— marinus, Choledocystus n.sp. in 83d.

— , Ochoterenella n.g., n.sp. in 83g.

— melanostictus, Oswaldocruzia (O.) n.sp. in 98a.

Bulgaria, incidence of Trichinella & cysticerci

367a.

Cercaria n.sp. in Goniobasis depugis 118s.

- angelae n.sp. 289d. - clausii, bionomics 118t.

- ellisi n.sp. 289d.

- gigantura var. grandior n.var. 289d.

- longicauda n.sp. & cercarial dermatitis in man 134a.

- loossi redescribed 158a.

- marilli to Nudacotyle novicia 118m. - solemyae n.sp. in Solemya velum 118f.

- szidati n.sp. in Campeloma sp. 118n. - usaquenensis n.sp. in Planorbis pronus in Colombia 457d.

Cercariae in snails in Australia 289d.

Cestoda, see also Platyhelmia.

Cestode anaemia, haematology 1a.

- in man in India 111a.

Cestodes in dog, perthiocyanic acid 55g.

- - mammals & birds in Abyssinia 367b. - man, male fern extract 194a.

-, new anthelmintics 506.

- in poultry, tin oleate & ammonium compounds 140b.

- - Puma concolor 200c.

— sheep 368b.

Ceylon, Coenurus serialis 204d.

-, trematodes 7a.

Chabertia ovina in sheep, experimental infection

Chemistry, hydatid membrane 185a.

Chile, Fasciola hepatica 452a.

-, helminths in dog 170a.

-, - man 205a.

-, Inermicapsifer cubensis 408a.

trichinelliasis 349a, 453a. China, Microfilaria malayi 205c, 371a.

, nematodes in fowl 283a.

Chiorchis burti n.sp. in Rana hexadactyla 7a. Choanodiplostomum lintoni n.g., n.sp. in Gallinula chloropus 472a.

Choanotaenia riccii n.sp. in Sphenorhynchus abdimii 367b.

Cholecystitis in Ascariasis lumbricoides 337b. Choledocystus intermedium n.sp. in Bufo marinus 83d.

Choricotyle reynoldsi to Neoheterobothrium reynoldsi n.comb. 118b.

Chrysanthemum, Aphelenchoides ritzema-bosi in 246a, 250d.

Chrysocolaptes guttacristatus, Krimi n.g., n.sp. in 204b.

Chrysocyon brachyurus, Dioctophyme renale in

Chthonerpeton indistinctum, Glypthelmins n.sp. in 178a.

Cinnyris zeylonicus, Ophryocotyloides n.sp. in 4400.

Citrus, Tylenchulus semi-penetrans in 138a, 190a, 268a.

Cittotaenia sandgroundi n.sp. in Dendrocygna javanica 118k.

Clinostomum sp. in cat in India 112c.

- complanatum & laryngo-pharyngitis in man in Palestine 167a.

- ophicephali n.sp. in Ophicephalus striatus 435a. Clonorchis sinensis in man 386a.

Clover, Anguillulina dipsaci in 492b.

Coenurus cerebralis in sheep in New Zealand 187a.

- gaigeri in sheep & Nubian ibex in Egypt 365a. - serialis in Capromys pilorides in Cuba 151a.

____ Lepus nigricollis in Ceylon 204d.

- -, proliferation 209a. Colinus virginianus, Raillietina (R.) n.sp. in 65b. - striatus, Paronia n.sp. in 367b.

Collyriclum faba in birds, host-list 186a. Colombia, Anguillulina similis (?) 272a.

-, Cercaria n.sp. 457d.

-, helminths in man 457a, 457e.

Colymbus dominicus, Diplostomum n.sp. in 472a.

-, Nephrostomum n.sp. in 472b. Compost controlling Heterodera 218a, 218b.

Control, Aphelenchoides ritzema-bosi 250d.

-, ascarid ova 501, 511.

-, Australorbis centrimetralis 128a.

-, - glabratus 118bk. —, dicryocauliasis 502.

-, Dictyocaulus 495c, 495h.

-, Dracunculus intermediaries 109a.

—, eelworm in papaya 439a. —, Enterobius 420a.

-, fascioliasis 393a. -, helminth ova 242i.

-, helminths 369a, 495a, 495b.

—, — in domestic animals 70b.

—, — — pig 135a, 140c.

-, - - poultry 139a. -, - - sheep 30g, 32a, 298a, 372a, 376a.

-, Heterodera 218a, 218b.

- marioni 101a, 116a, 214a, 216a, 22va, 248a, 250a, 250b, 250c, 255a, 256a, 443a, 483a, 484b.

—, — rostochiensis 63a, 108a. —, — schachtii 484a, 484b. -, Hymenolepis 242b.

—, Limnaea truncatula 17a. -, liver-fluke disease 17a, 105a.

-, Moniezia 495c.

-, Schistosoma mansoni 245b.

-, schistosome intermediaries 310. -, schistosomiasis 310.

—, — mansoni 128a.

-, strongyloid larvae 495e. , Triaenophorus crassus 445a.

Cosmocercoides bufonis n.sp. in Bufo himalayamım

Cotton, Heterodera marioni in 226a.

Cotugnia platycerci n.sp. in Platycercus icterotis 204a.

Cotylophoron spp. larvae in goat, sheep & cattle in India, fatal infection 440n.

- cotylophorum larvae in goat in India, fatal cases 440 1.

— —, life-history in India 440 l. Cotylurus flabelliformis, life-history 232b.

Creeping eruption in man 241b.

- caused by Schistosoma mansoni 213a. ----, Fouadin 113a, 230a.

Crepidostomum reviewed 142d.

— indicum n.sp. in Schizothorax niger 142d.
— lintoni to C. auriculatum 142d.

Criconema rusticum in India 440d.

Crotalaria spectabilis, trap crop for eelworms in papaya 439a.

Crypturus variegatus, Heterakis n.spp. in 182c.

Cuba, Coenurus serialis 151a. -, Echinostomatidae 472b. -, Fasciola hepatica 276c. -, helminthiasis in man 509. —, Hymenolepis diminuta 340b. —, Inermicapsifer cubensis 276b. —, Strigeidae 472a. Cucullanellus sheardi n.sp. in Threpterius maculosus Cucumbers, eelworms in 351a. Culex, see also Mosquitoes. - fuscanus transmitting Microfilaria malayi 371a. - molestus, intermediary for Foleyella duboisi 118 1. Cyclocoelum bivesiculatum n.sp. in Thereiceryx zeylanicus 7a. - pseudomicrostomum in Fulica americana in Mexico 331a. - redescribed 331a. Cyclocotyla hysteroncha n.sp. 118b. Cyclops strenuus, 1st intermediary for Diphyllobothrium sp. 183a.

— viridis, 2nd intermediary for Halipegus amherstensis 65f. Cyprinidae, Sphaerostomum spp. in 500b. Cryptocephalus indicus n.g., n.sp. in marine fishes in India 440e. Cysticerciasis, cerebral, in man 278a, 342c, 353a. —, — & psychosis 384b. — in man 53a, 113b. — — in Mexico 273d. ---, skin tests 41a.
---, X-ray diagnosis 450a. -, ocular, in man 338b. - cellulosae, cerebral, in man 499a. — — in man 262a.

— — in India 110a.

Cysticercus bovis in Bulgaria 379b.

— — cattle in France, localization 498b.

— — Larvia, incidence 498d. - cellulosae in Bulgaria 379b. — — Latvia, incidence 498d. Cytology, Digenea 263a. Dactylogyridae in fishes in U.S.A. 177a. Dactylogyrus banghami n.sp., 177a.

— bullosus n.sp. 177a. - graciliuncinatus n.sp. in fish 319a. — grislaginis n.sp. in fish 319a. — pollex n.sp. 177a. DDT not controlling free-living eelworms 238a. Deer, mule, helminths in 398b. Dendragapus obscurus, helminths in 40a. Dendrocygna javanica, Cittotaenia n.sp. in 118k. Denmark, eelworms in root-crops 306. -, nematodes in sheep 406a. Diagnosis, ascariasis 22a, 413b. —, cysticerciasis 41a, 450a. —, enterobiasis 60a, 113c, 301a. -, Fascioliasis hepatica 201e, 201h. -, filariasis 81c. _, _ bancrofti 4f, 176b, 176d. -, helminthiasis in cattle 405a. ____, ___ domestic animals 161a, 505, 516. _____ man 401a. —, hydatid 244a, 356c, 381a, 456c, 462d. —, liver-fluke ova 322a.

-, loaiasis 4e.

Diagnosis, onchocerciasis 4e, 81b, 353c. -, schistosomiasis 154b. —, — mansoni 270a, 463a. —, Taeniasis saginata 273c. -, trichinelliasis 80a, 324a. Diaptomus gracilis, 1st intermediary for Diphyllo-bothrium sp. 183a. Dicrocoeliidae revised 418a. Dicrocoelium dendriticum in ruminants in India, life-history 440o. Dictyocauliasis in cattle in Russia 504. ---, control 495h. - ruminants in Russia, control 495c, 502. Dictyocaulus, see also Lungworms. - in sheep & cattle 399a. - - in Russia, treatment 495d. Didelphis mesamericana, Gongylonemoides n.sp. in 331d. — —, nematodes in 331d. - virginiana, Eurytrema allentoshi in 140d. Digenea, germ-cell cycle 263a.

Dioctophyme renale in Chrysocyon brachyurus in Argentina 217a. — — dog 92a, 217b.
— — Nasua solitaria in Argentina 217a.
Diorchis ralli n.sp. in Rallus elegans 65d.
— reynoldsi n.sp. in Blarina brevicauda 65c. Dipetalonema, systematics 245a. Diphyllobothrium anaemia 168a, 168b, 168c. - sp., life-history 183a. — in trout in Britain 37a, 183a.
— — British Isles 89a, 89b, 89c, 89e. - latum in man in Ireland 89d. Diplasiocotyle johnstoni n.g., n.sp. 289b. Diplostomulum xenopi n.sp. in Xenopus laevis 118e. Diplostomum brevisegmentatum n.sp. in Colymbus dominicus 472a. Diplotriaena reviewed 158b.

— thomasi n.sp. in Zonotrichia albicollis 158b. Dipylidium caninum, abnormal 288b. Dirofilaria immitis in Canis occidentalis 135b. — — dog in Bahamas 30f.
— — — Ecuador 455a.
— — —, no prenatal infection 491b.
— — Nasua narica in Mexico 83h.
— —, periodicity 92d. Dog, ancylostomiasis in 382a.

—, arecolip hydrobromide 277a. —, ascarid in 72a. —, "butylphen" 140e. —, Dioctophyme renale in 92a, 217b.
—, Dirofilaria immitis in 30f, 455a, 491b.
—, helminths in 30d, 170a, 239a, 482a. —, perthiocyanic acid 55g. -, phenothiazine 14a. —, Thelazia callipaeda in 24e. -, toxicity of phenothiazine to 14a. -, Trichuris vulpis in 390c. Dracunculus intermediaries, control by fishes 109a. -medinensis, calcification 88a. Duck, see also Poultry. -, Spelotrema n.sp. in 118c. East Africa, see also Abyssinia, Africa, Eritrea. ——, ancylostomiasis in man 102b, 102c.
——, helminths in domestic animals 19a, 19b.

- Indies, helminths in man 291a.

Eritrea, Schistosoma mansoni 358b. East Prussia, helminths in man in mummified Erodium cicutarium, Nacobbus n.g., n.sp. in 55i. bodies 500d. Erythema treated by ancylostomiasis 364a. -, Sphaerostomum spp. 500b. Eucreadium eutropiichthyius n.g., n.sp. in Eutropiichthys vacha in India 440a. Echinochasmus famelicus n.comb., redescribed 7a. - pelecani n.sp. in Pelecanus conspicillatus, dife-Eudryas bifossatus, Renifer le erocoelium in 449a. history 289c. Euphractus sexcinctus, Ancylostoma caninum in Echinococcus, see also Hydatid. - granulosus in dog, arecolin hydrobromide 277a. -, Ascaris lumbricoides in 245b. Echinostoma americana n.sp. in Fulica americana --, Schistosoma mansoni in 245b. Eurocephalus rüppeli, Anonchotaenia n.sp. in - gracile n.sp. in Fulica carabaea 472b. 367b. - incrassatum to Bashkirovitrema n.g. 208d. —multispinosa n.sp. in Oxyura jamaicensis 472b. Echinostomatidae in birds in Cuba 472b. Eurytrema allentoshi in Didelphis virginiana 140d. - koshewnikowi to Stromitrema n.g. 208d. Ecuador, Dirofilaria immitis 455a. - procyonis, life-history 232a. survival Eustrongylides ignotus larvae, -, helminths in man 455b. metabolism 361. Eelworms, see also Nematodes. , transmission to fishes & invertebrates - associated with Phyllophaga spp. larvae 116b. 55h. — in cucumbers 351a.

—, free-living, in Belgian Congo, 2 n.spp. 318a. Eutropiichthys vacha, Eucreadium n.g., n.sp. in -, -, in brackish water in Iceland 350a. -, -, destroyed by Hyphomycetes 131a. Evranorchis n.g. for Opisthorchis ophidiarum 208d. -, -, not controlled by DDT 238a. Faeroes, liver-fluke 428a. —, gall-forming, in mosses in Holland 403a. - in lucerne 492a. Far East, helminthiasis in man 219b. — papaya, trap cropping 439a.
— plants in India 211b, 44ou. Fasciola gigantica in India, life-history 440s. - hepatica & biliary lithiasis in man 473a. ————— U.S.A. 138j. - -, bionomics 224b. -----, varietal resistance, bibliography 74. — — in cattle, economic loss 311. -- potato in U.S.A. 197a. ---, hexachlorethane 118bg, 286a, 311. ————, survey 503. — — Chile, life-history 452a. — — root crops in Denmark 306. — — India, life-history 440r. — tomatoes 351a. — wheat in U.S.A. 138i. — — man, case report 332a. Egretta thula, Ophiosoma n.sp. in 472a. Egypt, hookworm 394c. — — sheep in Australia 228a. —, Coenurus gaigeri 365a.
"Eimeran" controlling ascarid ova 501. Fascioliasis, see also Liver-Fluke disease. - in man, in bile duct 357a. Eire, see Ireland. — - sheep in Australia, control 393a. Elephantiasis, see also Filariasis bancrofti. - hepatica in man 377a. -- in man, case report 459a. ----, diagnosis by duodenal sound 201h. — — — in France 404a.
— — —, immunological tests 201e.
— —, skin reactions 404b. — —, surgical treatment 234a. England, see Britain. Enterobiasis, basic fuchsin 201b. -, crystal violet 309, 432a. Fiji, transmitting mosquito of filariasis 77a. — in man 124a, 175a. Filaria, see also Microfilaria. ---, control 420a. "Filarial" abscess in man in Pacific 290a. ---, diagnosis by Graham swab 60a. - periodicity 121a. ———, — & incidence 301a. Filariasis in lizard 66b. — — , eosinophilia 453c. — — , epidemiology 242j. — — in Mexico 475a. - & lymphangitis in man in Pacific 68a. — in man 8b, 50a, 122a, 134b, 220a, 240a, 249a, 259a, 426a, 429a, 441a. — —, submucous invasion, fatal case 424a. — —, chyluria 389b. ———, technique for diagnosing 113c.———, treatment 49a. — — in Ḥawaii 387a. — — , intradermal tests with Dirofilaria immitis -, methylene blue 124b. antigen 81c. Enterobius & appendicitis in man 269c, 356b. -- in Pacific 92b, 159b, 292d, 292e, 299a. - pruritus, anaesthesin 420b. ---, transmission 68c. -, technique for clearing 156a. — — —, pathology 79b. — — in Puerto Rico 92c. -, triphenylmethane derivatives 407c. — ——, summary 426b.
— ——, surgical complications 8a.
— —— in U.S.A. 325a. - sciuri n.sp. in Sciurus vulgaris 280a. Eosinophilia & ancylostomiasis 476a. —— in man 453c. Eretmochelys imbricata, Pleurogonius n.sp. in 182b. ---, possibility of re-introduction -, Pyelosomum n.sp. in 182b. 118bq. Eritrea, see also East Africa. -, neostam 61b. —, ancylostomiasis 193a.

-, helminths in man 358a.

-, ocular, in domestic animals in India 24b.

-, transmitting mosquito in Fiji 77a.

Filariasis bancrofti, see also Elephantiasis, Wuchereria. - in man 127a, 292a, 292b, 321a, 491a. — — — in Argentina 481b. — — —, early diagnosis 176b. — — — in Pacific 68b. ———, pathology 176c.
———, skin tests with Litomosoides carinii antigen 4f. ————, symptoms 491d. -, precipitin reaction 176d. Filariids in amphibians 118 1. Filarioidea from Mexico 83g. Finland, Monogenea 319a. Fish, Transversotrema n.g., n.sp. in 118d. Fishes, Acanthocephalus n.sp. in 182a. -, ascarid larvae in 136c. - controlling Dracunculus intermediaries 109a. -, Dactylogyridae in 177a. -, Dactylogyrus n.spp. in 319a. -, fresh-water, helminths in 490a. -, marine, Cryptocephalus n.g., n.sp. in 440e. -, Monogenea in 319a. -, transmission of Eustrongylides ignotus larvae to 55h. -, trematodes in 435a. , Triaenophorus crassus in 445a. Florida caerulea, Apharyngostrigea n.sp. in 472a. Foleyella duboisi, morphology & life-history 118 l. Forficula auricularis, intermediary for Mermis nigrescers 136d. Fossil helminths in East Prussia 500d. Fowl, see also Poultry. -, Amoebotaenia sphenoides in 390b. —, Ascaridia n.sp. in 283a. —, — galli in 118bc. —, Bhalfilaria n.g., n.sp. in 142b, 440j. —, helminths in 10b, 118bd, 264a, 440j. -, Microfilaria in 330b. -, nematodes in 283a. -, phenothiazine 118g, 447a.

-, - & nicotine-bentonite 118a. -, prickly ash bark 118g. -, Syngamus trachea in 107a, 402a. —, Tetrameres n.spp. in 142b, 440j.
—, tin oleate & ammonium compounds 140b. France, Cysticercus bovis 498b. —, Fascioliasis hepatica in man 404a.

-, strongylosis in sheep & goats 513. French West Africa, see also West Africa. -, schistosomiasis 366a.

Fruit trees, Heterodera marioni in 96a.

Fulica americana, Cyclocoelum pseudomicrostomum in 331a.

— —, Echinostoma n.sp. in 472b.

— carabaea, Echinostoma n.sp. in 472b.

Gallinula chloropus, Choanodiplostomum n.g., n.sp. in 472a.

Galumna obvius, intermediary for Moniezia benedeni 208b.

Gambusia affinis, 2nd intermediary for Echinochas-mus pelecani 289c.

Game inspection in Argentina 467a.

Gammarus pulex, intermediary for Opisthioglyphe megastomus 367a.

Gasterosteus aculeatus, 2nd intermediary for Diphyllobothrium sp. 183a.

Gastrothylax crumenifer in ruminants in India, life-history 440q.

Gekko gecko, Thubunaea sp. inq. in 440c. Genarchopsis fusipora n.comb. for Halipegus fusipora 65f.

Gendria ranarum n.sp. in Rana tigrina 56a. Glossogobius giurus, Prosorhynchus n.sp. in 435a. iphagus domesticus, in Catenotaenia pusilla **494a**. Glyciphagus intermediary

Glycomis sp., Heterodera marioni in 138a.

Glypthelmins reviewed 65a.

- spp. to Glypthelmins quieta 65a. - festina n.sp. in Bufo arenarum 178a.

- quieta, life-history 65a.

- sera n.sp. in Chthonerpeton indistinctum 178a. Goat, see also Ruminants.

-, Cotylophoron spp. larvae in 440n. -, - cotylophorum larvae in 440 l. -, Neometastrongylus n.g., n.sp. in 280a.

-, phenothiazine 513.

-, Protostrongylus n.sp. in 440i.

—, Varestrongylus n.sp. in 440i. Gobio fluviatilis, Plagioporus n.sp. in 500b. Gongylonemoides mexicanum n.sp. in Didelphis mesamericana 331d.

Goniobasis depygis, Cercaria n.sp. in 118s. Gonoplasius carangis n.g., n.sp. 289b. Gopherus polyphemus, Atractis n.sp. in 83f.

——, Tachygonetria n.sp. in 331b. Gordiidae in British Isles 442a. Gordius tenuifibrosus as fossil 500d.

Grillotia acanthoscolex n.sp. in Hexanchus griseus

Guatemala, nematodes in Didelphis mesamericana

-, onchocerciasis in man 431a.

Guinea-pig, Ascaris lumbricoides in 94a, 489a.

Habronema megastoma in horse in U.S.A. 160b.

Habronemiasis in horse 368a. Hadwenius to Odhneriella 208e. Haematology, helminthiasis 241d.

-, hookworm anaemia 102a.

Haemonchus, see also Stomach worms. - in sheep in Australia, phenothiazine 497b.

— contortus in cattle, immunity 140a. — — —, prepatent period 210a.

- - larvae, survival on pasture 6b.

— — ova, development & survival 224a.

——— & larvae, development & survival 224c. —————, survival on pasture 27a.

- - in sheep 93a. Halipegus reviewed 65f.

- amherstensis n.sp. in Rana spp., life-history

— fusipora to Genarchopsis fusipora n.comb. 65f. lermensis to H. occidualis 65f.

- longispina to H. ovocaudatus 65f. - spindale to H. mehransis 65f.

Halocercus kirbyi n.sp. in Phocoenoides dalli 136a. Hammerschmidtiella diesingi, early development

Harpactes fasciatus, Hymenolepis n.sp. in 204c. Hawaii, filariasis 387a.

Helminth larvae, skin irritation 344a.

- ova on food plants 242n.

```
Helminths in domestic animals in U.S.A. 118br.
Helminth ova & larvae on vegetables 267a.
                                                              - & dysentery in man 237a.
- - in rivers, control 242i.
                                                              - eosinophilia in man in Pacific 292c.
---, technique for concentrating 30a, 495g.
                                                              — in fowl, effect on growth of host 118bd.
—— in India 440j.
____, ___ examining faeces for 242 1.
____, ___ mounting 324c.
                                                              — — , nicotine sulphate 264a.
— — in Russia 10b.
- polysaccharides 117a, 118ba.
Helminthiasis in cattle in India 390a.
                                                              - fresh-water fish in U.S.A. 490a.
- domestic animals, diagnosis, text-book 505.
— — —, technique for diagnosing 161a.
— — —, text-book 312.
— & eosinophilia in man 201a, 241d.
                                                              - fur-bearing animals 172a.
                                                              — — game in Argentina 467a.
— — horse, anthelmintics 485a.
                                                              -----, paraffin 495i.
— — Loeffler's syndrome 225c.
                                                              ———, phenothiazine 69a, 145c.
- in man 241e.
                                                              - Lepus americanus, epizootology 236a.
— — in Africa, text-book 507.
———, allergy 337a.
——— in Brazil 451a.
                                                              — — man in Argentina 481a.
— — — Brazil 245b.
                                                              ———, brief summary 347a.
——— in China 205a.
———— Cuba, treatment 509.
———, diagnosis 401a.
——— in Far East 219b.
                                                              - - - Colombia, bibliography 457a, 457e.
                                                              ---, Dover's powder 249b.
--- Mediterranean 21a.
--- North Africa 21a.
                                                              ___ in East Indies 291a.
                                                              — — — Ecuador 455b.
— — — Eritrea 358a.
- - -, public health problems 61a.
———; text-book 314.
————, treatment 247a, 253a, 276a.
                                                              — — —, hexylresorcinol 454a.
— — in Mexico 465a.
———, —, text-book 519.
——— in tropics, possibility of introduction to
                                                              — — — Morocco 198b.
— — — mummified bodies in East Prussia
   U.S.A. 44a.
— — — —, text-book 514.

— — — wartime 370a.

— — — West Africa 66a.

— pig, control 135a.
                                                                500d.
                                                              ———, origin & evolution 293a.
——— in Pacific 82a.
                                                              — — —, pernicious anaemia 427a.
— — —, psychopathy 469a.
— — in South Africa 64a.
— — poultry 104a.
----, pathology 17b.
- - sheep, course of infection 70b.
                                                              — — in tropics 5a, 169a, 219a.

— — — U.S.A. 4c, 155a, 285b, 430a.

— — — West Africa, 76a.
-, treatment, text-book 302.
Helminthology, laboratory technique in U.S.A.
— in Russia 495 1.
                                                              - mule deer in U.S.A. 398b.
Helminths in amphibians in U.S.A. 258a.
                                                              — — Muridae in Spain 149a.
- & appendicitis in man 212d.
                                                              — — Ovis canadensis 30b.

in bile duct in man 389d.
Canidae in U.S.A. 177c.

                                                              -, physiological evolution 422a.
                                                              - in pig, effect of skim milk diet 55b, 118bo,
— — Castor canadensis 177b.
                                                                  140c.
-- cat & dog in U.S.A. 30d.
                                                              — — —, treatment 145b.
                                                              — & 'pining' in sheep 31b.— in Plethodontidae 118bl, 118bm.
— — cattle, differential diagnosis 405a.
———, phenothiazine 70a.
———, treatment 145a.
                                                              -, popular names 118bh.
- common to dog & man 239a.
                                                              - in poultry, control 139a.
                                                              ———, popular account 46a.
———, treatment 171a.
— — man & animals 211a.
-, control 369a.
— in Dendragapus obscurus 40a.
— dog, "butylphen" 140e.
                                                              - Proteidae 118bn.
                                                              -, reservoir hosts in tropics 81a.
— — in Chile 170a.
— — — Sweden 482a.
                                                              - in Russia, control 495a.
                                                              —— sheep 3a, 106a, 164, 165, 223b, 361b.
———, anthelmintics 467b.
-- domestic animals, carbon tetrachloride
                                                              ———, — compared 30e.
——— in Australia 33a.
    ----, diagnosis & treatment, text-book 516.
———— in East Africa 19a, 19b.
————, effect of alternate husbandry 71b,
                                                              ----, general account 393b.
                                                              --- Britain 296a.
                                                              — —, control 30g, 32a, 298a, 372a.
— —, copper & nicotine sulphates 161b, 261a,
————, immunity & control 71a.
———, origin & evolution 293a.
                                                                   296b.
----, phenothiazine 48a, 120a, 133a, 254a,
                                                              ---, --- and phenothiazine 97a.
                                                               ———, general account 372b.
———, recent research in U.S.A. 265a.
——— in Russia, control 495b.
                                                              — —, longevity 446a.
——, phenothiazine 30c, 48b, 57a, 62a, 62b,
---- South Africa 215a.
                                                               261a, 261b, 392a.
———, treatment 221b, 265b.
                                                                ---, - & salt 90a, 227a, 282a, 295a.
```

Helminths in sheep, treatment 261b, 266a. Hookworm, see also Ancylostoma, Creeping eruption, Necator. ——— in U.S.A. 188a, 297a. —————, control 376a. – anaemia 148a. - - Siren lacertina 118bn. — — & avitaminosis B₁ 394b. — — Spain, compendium 458a. -, haematology 102a. — Sylvilagus floridanus in U.S.A. 398a. — & tuberculosis in man in Venezuela 470b. ——, iron therapy 242a.
——, sodium chloride excretion in 417a. - in Urocyon cinereoargenteus in U.S.A. 231a. - larvae, skin irritation 344a. - vertebrates in Brazil 128b. ---, -- penetration 208a. Helodrilus caliginosus, intermediary for Capillaria — in man in Egypt 394c.
—, toxic effect on heart muscle 142a.
Horse, Allegan 379g. caudinflata 25a. Hemirhamphus intermedius, Micracanthocephalus n.sp. in 182a. -, anthelmintics 379d, 485a. Hesperethusa crenulata, Heterodera marioni in 138a. -, ascariasis in Ioa. Heterakis bosia in Pan satyrus 115a. -, ascarid ova 501. - crypturi n.sp. in Crypturus variegatus 182c. —, carbon tetrachloride 379g. - multidentata n.sp. in Crypturus variegatus 182c. -, Habronema megastoma in 160b. Heterodera, control by compost 218a, 218b. —, habronemiasis in 368a. - marioni in Arctium minus in Canada 202a. -, Kachexid 379e. ——— beans 157a. -, Onchocerca reticulata in 100a. ——, biological races 55j.
—— in carrot in U.S.A. 251a. -, onchocerciasis in 233a. -, paraffin 495i. -, phenothiazine 55e, 69a, 114a, 145c, 17oc, 360b, 379e, 478a, 508. ----, control 483a, 484b. ——, — by D-D 216a.
——, —— "Dowfume" 116a.
——, —— mulching 256a. —, strongyles in 222a.
—, "Tetraspezial" 510.
—, Thelazia in 495f. - -, - Napier grass 101a.
- -, - soil fumigants 248a, 250b.
- in cotton, control by fertilizers 226a.
- fruit trees, varietal resistance 96a. -, toxicity of phenothiazine to 69a. , "Verminekrin" 379e, 512. Hungary, Strongyloides stercoralis 99a. Hydatid, see also Echinococcus. ---, general account 206a. - in Glycomis sp. 138a. - in bone 355c, 373a. — — Hesperethusa cremulata 138a. -, Casoni reaction 332b, 356d. — — Parthenium argentatum, resistance 137a.
— — pea in U.S.A. 363a.
— — peach, control by resistant cover crops - in cattle 24a, 24f. — & choleperitoneum in man 380c. — cyst, rupture of 320a, 343a. — in domestic animals 279a. - & eosinophilia in man 411a. -, immunology 34a, 54b. — in man 18a, 20a, 29a, 54a, 58a, 59a, 84a, 84b, 84c, 87a, 87b, 125a, 185d, 185e, 191b, 191c, 191d, 196a, 212c, 241f, 253b, 253c, 253d, 269a, 269b, 269d, 275a, 275b, 329a, 335a, 336a, 342b, 342d, 355b, 38ob, 383a, 388a, 138b, 138f, 138g. --- potato in U.S.A. 138e. —, technique for testing soil for 252a.
— in tobacco, control by crop rotation 214a, 250a, 250c. — — tomato in Britain 487a.
— — — Canada, control 443a. 396a, 407a, 407b, 414a, 415a, 425a, 459b, 460a, 462a, 462c, 462g. — — — & animals in Argentina, incidence 380a. - rostochiensis, effect of earthworms on hatching —— in potato in Britain 487a. - - - control 108a.
- - - , - by calcium chloroacetate 63a.
- - - , recent research in Ireland 229a.
- - in Sweden 294a, 400a. - membrane, chemistry 185a. -, Michailow test 356d. - in New Zealand 47a. schachtii, see also H. rostochiensis. -, pulmonary, & tuberculosis 356a. — in sheep 300a. ----, control 484a, 484b.

Hexametra, key to spp. 280a.

— daelhoelzlii n.sp. in Vipera lebetina 280a. Hydatidosis, false, in man 355a. Hydrous triangularis, Pseudonymus n.spp. in 1180. Hylobates concolor, Strongyloidiasis stercoralis in Hexanchus griseus, Grillotia n.sp. in 51b. Hymenolepis, auto-infection 242d. Hexangium affinum n.sp. in Amphacanthus javus -, immunity 242c. - in man, epidemiology & control 242b. Hexostoma macracanthum n.sp. 118b. ———, treatment 242g.
———, treatments compared 242h. Hippocrepidae n.fam. 147a. History, fossil helminths 500d.

Holland, eelworms in mosses 403a

-- diminuta in man in Argentina 352a.

Hymenolepis diminuta in man in Cuba 340a.

-, vitamin requirements 118j.

- ellisoni n.sp. in Acridotheres tristis 204c.
- fraterna in mouse, alcoholism & immunity 118bf.

- mental infections 36c.
- - & Nippostrongylus muris in mouse, mixed infections 36b.

- megalops redescribed 83e.

— septemsororum n.sp. in Turdoides griseus 204c. — uragahaensis n.sp. in Harpactes fasciatus 204c. Hyphomycetes destroying free-living eelworms 131a.

Hypoderaeum conoideum in Querquedula discors

Ibex, Nubian, Coenurus gaigeri in 365a.

Iceland, free-living eelworms 350a. Idus melanotus, Sphaerostomum n.sp. in 500b.

Immunity, Ascaridia galli 118bc. -, ascarids in body cavity 374a.

-, Ascaris lumbricoides 94a, 489a. - domestic animal helminths 71a. -, Haemonchus contortus 140a.

-, Hymenolepis 242c.

-, - fraterna 4a, 4b, 118bf. -, Nippostrongylus muris 4d. —, Syngamus trachea 36g. —, Trichuris muris 242k.

Immunology, allergy in intestinal helminthiasis 337a.

-, ascariasis 22a.

-, Ascaris 28a, 35a.

-, - & tubercular antigens 470c.

-, cysticerciasis 41a.

-, fascioliasis, skin reactions 404b.

-, - hepatica 201e. -, filariasis 81c.

-, - bancrofti 4f, 176d.

-, hydatid 34a, 54b, 185b, 244a, 332b, 356d.

--, loaiasis 4e.

- -, Microfilaria carinii 118z. -, Necator americanus 118x. -, onchocerciasis 4e, 81b.
- —, Schistosomiasis mansoni 270a, 444b. —, Trichinella 323a, 420c.

-, trichinelliasis 80a.

-, Trichosomoides crassicauda ova 118bi. India, Amoebotaemia sphenoides 390b.

-, cestode in man 111a. -, Clinostomum sp. 112c.

-, Cotylophoron spp. larvae 440n.

-, - Cotylophorum 440 1 -, Criconema rusticum 440d.

-, Cysticerciasis cellulosae 110a. -, Dicrocoelium dendriticum 4400. -, eelworms in plants 211b; 440 u.

—, Fasciola gigantica 440s.

-, - hepatica 440r.

- -, filariasis in domestic animals 24b.
- -, Gastrothylax crumenifer 440q. -, helminthiasis in cattle 390a.
- -, helminths in fowl 440j.
- -, nematodes in ruminants 221a. -, Paramphistomum cervi 24d.
- -, explanatum 440p.

India, Protostrongylus n.sp. 440i.

-, strongylosis in bovines 440t.

-, Taema solium & T. saginata in man 23a. -, Thelazia callipaeda 24e. -, Trichuris vulpis 390c.

-, Varestrongylus n.sp. 440i. Indoplanorbis exustus, intermediary for Cotylo-

phoron cotylophorum, 440 l., 1st intermediary for Gastrothylax crumenifer 440q.

--, --- Paramphistomum explanatum 440p. Inermicapsifer cubensis in man in Chile 408a.

__ _ _ Cuba 276b.

Infidinae n.subf. 418a. Insects, intermediaries for Subulura brumpti 288c. Invertebrates, transmission of Eustrongylides ignotus larvae to 55h.

Ireland, see also British Isles. -, Diphyllobothrium latum 89d. -, Heterodera rostochiensis 229a.

Ixobrychus exilis, Apharyngostrigea n.sp. in 472a.

Jacana spinosa, Prionosoma n.sp. in 472b.

Kinosternon integrum, Telorchis corti in 83a. Krimi chrysocolaptis n.g., n.sp. in Chrysocolaptes guttacristatus 204b.

Latvia, incidence of Trichinella & cysticerci 498d.

Leidynema appendiculatum, early development 65e.

Lepidopus caudatus, Capillaria n.sp. in 289a.

Leporidae, see also Lepus, Sylvilagus. -, Protostrongylus spp. 36h.

Lepus, see also Leporidae.

— americanus, helminths in 236a. — nigricollis, Coenurus serialis in 204d.

Life-history, Ancylostoma duodenale 457c.

—, Anoplocephalidae 488a. -, Capillaria caudinflata 25a. -, Catenotaenia pusilla 494a.

-, Cotylophoron cotylophorum 440 1. -, Cotylurus flabelliformis 232b -, Dicrocoelium dendriticum 440o.

-, Diphyllobothrium sp. 183a.

-, Echinochasmus pelecani n.sp. 289c.

-, Eurytrema procyonis 232a. -, Fasciola gigantica 440s. -, - hepatica 440r, 452a.

-, Foleyella duboisi 118 1. -, Gastrothylax crumenifer 440q. -, Glypthelmins quieta 65a.

-, Halipegus amherstensis n.sp. 65f. --, Hammerschmidtiella diesingi 65e.

—, Leidynema appendiculatum 65e. -, Mermis nigrescens 136d.

-, Mesocestoides lineatus 374b. -, Metorchis coniunctus 13a. —, Microfilaria malayi 371a.

-, Moniezia benedeni 208b. -, Necator americanus 457c.

-, Nudacotyle novicia 118m. -, Paramphistomum explanatum 440p.

-, Plagiorchidae 36f.

-, Schistosoma mansoni 201g, 416a. -, Schistosomatium douthitti 36a. -, Strongyloides stercoralis 457b.

Life-history, Subulura brumpti 288c. -, Taenia saginata 457f. -, - solium 457g. -, Thysaniezia ovilla 208c. -, Varestrongylus pneumonicus 440m. Lime, slaked, controlling Australorbis centrimetralis 128a. Limnaea acuminata & L. luteola, 1st intermediaries for Fasciola hepatica in India 440r. luteola, 1st intermediary for Fasciola gigantica in India 440s. - stagnalis, intermediary for Cotylurus flabelli-formis 232b. - truncatula, control 17a. - viatrix, intermediary for Fasciola hepatica Lithiasis, biliary, & Fasciola hepatica in man 473a. Litomosoides, see also Microfilaria. - carinii, in vitro testing of anthelmintics against 118bp. - in rat, neostam & neostibosan 119a. - carolliae n.sp. in Carollia perspicillata in Mexico 331c. Liver fluke disease, see also Fascioliasis. - - in cattle, hexachlorethane 160c. - - - domestic animals, control 17a. ---, Igitol & carbon tetrachloride 24c. — — & Gärtner bacillus in cattle 163a. — — in sheep, control 105a. — — — in Faeroes 428a. — — ova, diagnosis by direct smear 322a. Lizard, filariasis in 66b. Loaiasis in man, skin tests with Litomosoides carinii antigen 4e. Loeffler's syndrome & Ascaris in man 474a, 479a. — — helminthiasis 225c. Loimoinae reviewed 123a. Loimosina wilsoni n.g., n.sp. in Sphyrna zygaena 123a. Lucerne, eelworms in 492a. Lungworm disease in cattle, popular account 2a. Lungworms, see also Dictyocaulus, Metastrongylus, Protostrongylus, Varestrongylus. - in sheep, pyrethrins 361a. Lyperosomum porrectum to Skrjabinosomum n.g. 208d. Mabuya carinata, Africana n.sp. in 115a. Macracanthorhynchus hirudinaceus in pig, experimental infection 6f. intermediary Macrochlamys cassida, Varestrongylus pneumonicus 440m. Madagascar, schistosomiasis 366a. Mammals, see also Animals. —, cestodes in 367b. Man, "Acranil" 191a. —, Ancylostoma braziliense in 64b. __, _ caninum in 454c. __, _ duodenale in 457c -, ancylostomiasis in 42a, 102b, 102c, 130a, 162a, 193a, 241a, 364a, 476a.

-, anthelmintics 436a, 461a.

-, ascariasis in 9a, 22a, 59b, 66c, 102d, 152a, 152b, 174a, 212b, 242o, 243a, 334a, 337b,

-, Ascaris in 327a, 364b, 434a, 474a, 479a, 515-

-, anthiomaline 113d

378a, 413a, 413b.

Man, basic fuchsin 201b. -, carbon tetrachloride 11a. -, cestode in 111a. -, Clinostomum complanatum in 167a. -, Clonorchis sinensis in 386a. -, creeping eruption in 113a, 241b. -, crystal violet 309, 432a. -, cysticerciasis in 41a, 53a, 113b, 273d, 278a, 338b, 342c, 353a, 384b, 450 a. - cellulosae in 110a, 262a. -, Cysticercus cellulosae in 4992 -, Diphyllobothrium latum in 89d. -, Dover's powder 249b. -, elephantiasis in 234a, 459a. -, emetin 468a. -, enterobiasis in 49a, 60a, 113c, 124a, 124b, 175a, 424a, 453c, 475a.

—, Enterobius in 269c, 301a, 356b, 420a.

—, Fasciola hepatica in 271a, 276c, 332a, 473a. —, fascioliasis in 357a.

—, hepatica in 201e, 201h, 377a, 404a.

—, "filarial" abscess in 290a.

—, filariasis in 8a, 8b, 50 a, 68a, 68c, 79b, 81c, 92b, 92c, 118bq, 122a, 134b, 159b, 220 a, 240 a, 249a, 259a, 292d, 292e, 299a, 325a, 387a, 389b, 426a, 426b, 429a, 441a. bancrofti in 4f, 68b, 127a, 176b, 292a, 292b, 321a, 481b, 491a, 491d. -, Fouadin 113a, 230a. -, gentian violet 49a, 260a. -, helminthiasis in 21a, 44a, 61a, 66a, 201a, 219b, 241d, 241e, 247a, 253a, 276a, 314, 370 a, 401a, 451a, 507, 509, 514, 519. -, — —, allergy 337a. —, helminths in 4c, 5a, 64a, 76a, 82a, 155a, 169a, 198b, 205a, 211a, 212d, 219a, 237a, 239a, 245b, 285b, 291a, 292c, 293a, 347a, 358a, 389d, 427a, 430 a, 455b, 457a, 457e, 465a, 466a, 469a, 481a, 500d. -, - & ruberculosis in 470b. -, hexylresorcinol 454a, 454b. -, hookworm in 394c. -, - anaemia in 417a. -, - & avitaminosis B_1 394b. -, hydatid in 18a, 20 a, 29a, 54a, 58a, 59a, 84a, 84b, 84c, 87a, 87b, 125a, 185b, 185d, 185e, 191b, 191c, 191d, 196a, 212a, 212c, 241f, 253b, 253c, 253d, 269a, 269b, 269d, 275a, 275b, 320 a, 326a, 329a, 335a, 336a, 342a, 342b, 342d, 343a, 355a, 355b, 355c, 356c, 373a, 380a, 380 b, 380 c, 381a, 383a, 384a, 388a, 396a, 407a, 407b, 411a, 414a, 415a, 425a, 436b, 448a, 456a, 456b, 456c, 459b, 460 a, 462a, 462b, 462c, 462d, 462e, 462f, 462g 464a. -, - & tuberculosis in 356a. -, Hymenolepis in 242b, 242g, 242h. —, — diminuta in 340 a, 352a. -, Inermicapsifer cubensis in 276b, 408a. —, loaiasis in 4e. -, male fern extract 194a. -, - - & methylene blue 242g. -, methylene blue 124b. -, Microfilaria malayi in 205c, 371a. -, Necator americanus in 457c -, onchocerciasis in 4e, 11b, 81b, 126a, 184a, 192a, 195a, 338a, 353b, 431a. -, paragonimiasis in 159a.

Microcotyle pentapodi n.sp. 289b.

Man, phenothiazine 49a. -, propamidine 154a. -, Schistosoma haematobium in 397a. -, - mansoni in 213a, 358b, 470a. -, schistosome dermatitis in 134a, 339a, 339b. -, schistosomiasis in 15a, 38a, 67a, 146a, 154a, 154b, 207a, 278b, 346a, 366a, 394d, 410a, 426a, 426b, 451b -, - haematobia in 328a, 409a. -, - mansoni in 86a, 113e, 128a, 129a, 225a, 225b, 345a, 417b, 444a, 444b, 463a, 477a, -, sparganosis in 205b. -, stibephen 394a. -, Strongyloides stercoralis in 99a, 199a, 457b. -, strongyloidiasis in 176a, 241c. -, Taenia ova in 273a. __, __ saginata in 11c, 242e, 273c. __, __ solium & T. saginata in 23a, 73b. -, taeniasis in 273d, 358c. -, - saginata in 201d -, toxicity of ascaridol to 453b. -, - carbon tetrachloride to IIa. -, Trichinella in 285a, 324a. —, trichinelliasis in 78a, 80a, 91a, 144a, 150a, 181a, 185c, 257a, 271b, 273b, 274a, 323a, 333a, 378b, 412a, 420c, 438a, 453a, 471a, 486a.

—, Trichostrongylus sp. in 118v. -, trichuriasis in 433a, 433b. -, triphenylmethane derivatives 407c, 437a. Maritrematidae n.fam. 367a. Meat inspection & Trichinella 163b. Mediterranean, helminthiasis in man 21a. Megaceryle alcyon, strigeids in 288a. Mermis kenyensis n.sp. 136d. - nigrescens, distribution in Britain 136d. ---, life-history 136d. tahitiensis n.sp. 136d.
 Mesocestoides kirbyi n.sp. in Canis latrans 118p.
 lineatus, life-history 374b. Mesodon thyroidus, intermediary for Eurytrema procyonis 232a. Metabolism, nitrogen, of Platyhelmia 423a. Metadelphis evandroi n.g., n.sp. 418a. Metastrongylus, see also Lungworms. - reviewed 140g. - elongatus suppressed 140g. Metorchis revised 367a. - caintaensis to Tubangorchis n.g. 208d. -- conjunctus, life-history 13a. — —, morphology & taxonomy 13a. — revilliodi redescribed 367a. Mexico, Cyclocoelum pseudomicrostomum 331a. -, cysticerciasis 273d. -, Dirofilaria immitis 83h. -, enterobiasis 475a. -, Filaroidea 83g. -, helminths in man 465a. -, nematodes in Didelphis mesamericana 331d. -, onchocerciasis 192a.

-, Taenia 273d.

Micracanthocephalus

- helotes n.sp. 289b.

-, trichinelliasis 150a, 273b.

Microcotyle gerres n.sp. 289b.

Hemirhamphus intermedius 182a.

- incisa to Microcotyloides n.g. 118b.

hemirhamphi

- scorpis n.sp. 289b. Microcotylidae from Australia 289b. Microcotyloides n.g. for Microcotyle incisa 118b. Microfilaria, see also Filaria.
— in fowl in Uruguay 330b. - carinii, agglutination by sera 118z. -malayi in man in China 205c. ----, life-history 371a. Microfilariae, technique for examining blood for 36e. Microphallidae redefined 367a. Microphallus, key to spp. 367a.

— gracilis n.sp. in Neomys fodiens 367a. Mites, oribatid, 1st intermediaries for Mesocestoides 374b. Molluscs, intermediaries for Opisthorchis felineus —, intermediaries for Schistosoma mansom in Belgian Congo 179b, 416a. Mongoose, marsh, Trichinella in 498e. Moniezia in ruminants, lead arsenate 295c. -- in Russia, control 495c — — sheep, copper sulphate 495j. - benedeni, life-history 208b. Monocoelium monenteron redescribed 319a. Monogenea in fishes in Finland 319a. Morocco, see also North Africa. -, helminths in man 198b. Mosquitoes, see also Aëdes, Culex. - transmitting Wuchereria in Pacific 259b. ———— U.S.A. 118y. Mosses, eelworms in 403a. Mouse, see also Muridae. -, Catenotaenia pusilla in 494a. -, Hymenolepis fraterna in 4a, 4b, 36b, 36c, 118bf. -, Nippostrongylus muris in 36b. -, Trichuris muris in 242k. Multiceps, see Coenurus. Muridae, see also Mouse, Peromyscus, Rat. —, helminths in 149a. Nacobbus aberrans n.comb. for Anguillulina aberrans 55i. dorsalis n.g., n.sp. in Erodium cicutarium 55i. Narcissus bulbs, Anguillulina dipsaci in 395a. Nasua narica, Dirofilaria immitis in 83h.
— solitaria, Dioctophyme renale in 217a. Necator, see also Creeping eruption, Hookworm. - americanus, effect of human sera on 118x. - - in man, life-history 457c. Nematicides (plant eelworm), see also Treatment. ———, calcium chloroacetate 63a. ———, compared 248a, 250b. ———, D-D 216a, 248a, 250b. ———, "Dowfume" 116a. ----, sodium selenate 250d. Nematoda, free-living & plant-parasitic, see also Eelworms. Nematode larvae in cattle, effect on growth of host 118be. -, in vitro effect of Artemisia vulgaris decoction on 201c. - Tanacetum vulgaris decoction on 201c. -, survival on pasture 232d. - ova, effect of ultraviolet radiation 36d.

Nematode ova, technique for mounting 118h,

Nematodes in animals in Belgian Congo 318b.

- in Australasia 289a,

— in cattle 363a.
— — & horse, phenothiazine 360b.

Didelphis mesamericana in Mexico & Guatemala 331d.

- fowl in China 283a.

____, phenothiazine 447a. ____, & nicotine-bentonite 118a. ____ prickly-ash bark 118g.

- ruminants in India, new host records 221a.

- - sheep in Denmark, phenothiazine 406a. ---, phenothiazine & salt 6g.

-, technique for mounting 118h.

Nematodirus disease in sheep in Australia 497a. - spp. in cartle & sheep in Argentina 467c.

- lanceolatus n.sp. in sheep 467c.

Nematotaenia tarentolae nom.nov. in Tarentola mauritanica & Platydactylus guttatus 458b.

Neodactylogyrus suppressed 177a.

Neodiplostomum paraspathula in Aquila chrysaetus

Neoechinorhynchus emydis, effect of sodium chloride on 118a.

-, in vitro tests on 232c.

Neoheterobothrium reynoldsi n.comb. for Choricotyle reynoldsi 118b.

Neometastrongylus büchii n.g., n.sp. in goat 280a. Neomys fodiens, Cephalotrema n.g., n.sp. in 367a.

- -, Microphallus n.sp. in 367a. - -, Opisthioglyphe n.sp. in 367a.

- -, trematodes in 367a.

Neopodocotyle indica n.g., n.sp. in Callichrous bimaculatus in India 440b.

Nephrostomum bicolanum to N. ramosum 7a. robustum n.sp. in Colymbus dominicus 472b.

New Zealand, see also Australasia. — —, Coemurus cerebralis 187a.

- -, hydatidosis 47a.

— —, schistosome dermatitis 134a.

Ninox novaeseelandiae, Capillaria n.sp. in 289a. Nippostrongylus muris & Hymenolepis fraterna in mouse, mixed infections 36b.

- in rat, hexylresorcinol 136b ————, tetrachlorethylene 136b. ————, vitamin B & immunity 4d.

Nomenclature, republication of new species 440k.

-, Taenia dispar 458b.

North Africa, see also Africa, Morocco.

— —, helminthiasis in man 21a. Nothoprocta pletandi, Syngamus in 385a. Notocotylidae to Notocotylinae 147a. Nudacotyle novicia, life-history 118m.

Nutrition & helminthiasis in man 507. Nyroca ferina, Psilochasmus longicirratus in 1420, 440 f.

Ochoterenella digiticauda n.g., n.sp. in Bufo marinus 83g.

Odocoileus hemionus, Thelazia californiensis in 12a. Odontoceti, Pseudaliidae in 136a.

Oena capensis, Raillietina (R.) n.subsp. in 367b. Oesophagostomum in pig, phenothiazine 55d.

- — sheep 26a.

- columbianum in sheep, experimental infections 287a.

Ogmocotylinae to Notocotylinae 147a. Ogmogasterinae to Notocotylinae 147a.

Olssoniella n.g. 418a.

Onchocerca gibsoni in Syncerus caffer in Belgian Congo 179a.

- reticulata & fistulous withers in horse 100a. Onchocerciasis in horse in South Africa 233a.

- man 126a, 184a, 195a, 353b. ----, laboratory diagnosis 353c.

——— in Mexico 192a.

----, skin tests with Dirofilaria immitis antigen 81b.

--, -- Litomosoides carinii antigen 4e.

-, ocular, in man 11b, 338a.

-, -, - in Guatemala 431a. Oochoristica anniellae n.sp. in Anniella pulchra 659.

Ophicephalus striatus, Clinostomum n.sp. in 435a. Ophiosoma multiovatum n.sp. in Egretta thula 472a.

Ophryocotyloides bhaleraoi n.sp. in Cinnyris zeylonicus 440g.

Opisthioglyphe megastomus n.sp. in Neomys fodiens 367a.

Opisthorchidae revised, key to spp. 367a.

Opisthorchis felineus, intermediaries in Russia

- ophidiarum to Evranorchis n.g. 208d.

Orthorchis n.g. 418a.

Oryzias latipes, 2nd intermediary for Echinochasmus pelecani 289c.

Ostertagia, see also Stomach worms.

- circuncincta larvae, effect of environment 6d,

Oswaldocruzia (O.) indica n.sp. in Bufo melanostictus 98a.

Ovis canadensis, helminths in 30b.

Oxyura jamaicensis, Echinostoma n.sp. in 472b. Oxyurid ova, hatching in vitro 201f.

-, triphenylmethane derivatives in vitro 201f. Oxyuris aegocerotos n.sp. in Capra ibex 280a.

Pachytrematidae n.fam. 367a.

Pacific, ancylostomiasis in man 42a.

—, "filarial" abscess 290a.

-, filariasis 68a, 68c, 92b, 159b, 292d, 292e, 299a.

-, - bancrofti 68b.

-, helminthiasis in man 219b.

-, helminths in man 82a, 292c.

—, paragonimiasis 159a. —, Wuchereria 259b.

Pagurus longicarpus, Polymorphus sp. larvae in 118i.

Palestine, Clinostomum complanatum 167a.

Pan satyrus, Heterakis bosia in 115a. — —, Strongyloidiasis stercoralis in 360c.

Papaya, eelworms in 439a. Paradistomoides n.g. 418a.

Parafilaria bulgarica n.sp. in cattle in Bulgaria

Paragonimiasis in man in Pacific 159a.

Paramphistomum spp. in ruminants_in U.S.A. 118u.

- castori to Stichorchis subtriquetrus 177b.

- cervi in cattle in India 24d.

- explanatum in bovines in India, life-history 140p.

Paramphistonium microbothrioides n.sp. in cattle 118u.

Parascariasis in horse, treatment 379d. Parasites, technique for mounting 65h.

-, - - staining 173a.

Parasitology, agricultural, text-book 317.

-, human, text-book 75, 166, 315.

—, text-book 304. —, veterinary, in Britain 103a.

Paroaria coronata, Syngamus in 385a.

Paronia zavattarii n.sp. in Colius striatus 367b. Parthenium argentatum, Heterodera marioni in

Patagifer simarai n.sp. in Platalea leucordia 493b. Pathology, filariasis 79b.

-, - bancrofti 176c.

-, helminthiasis in poultry 17b.

-, hydatid 335a, 415a, 462c. -, onchocerciasis in man 338a.

-, Parafilariasis bulgarica in cattle 500c.

—, schistosomiasis 278b.

-, - mansoni 86a. -, trichinelliasis 78a, 79a, 341a.

Pea, Heterodera marioni in 363a.

Peach, Heterodera marioni in 170b, 255a.

Pelecanus conspicillatus, Echinochasmus n.sp. in 289c.

Peltorhamphus novae-zelandiae, Rhadinorhynchus n.sp. in 182a.

Peromyscus, see also Muridae.

— maniculatus, Hymenolepis fraterna in 36c. Petasiger antigonus n.sp. in Antigone antigone 493a.

- yamaguti n.sp. in Anhinga melanogaster 493a. Philippine Islands, trematodes in fishes 435a. Phocoenoides dalli, Halocercus n.sp. in 136a.

Phyliophaga spp. larvae associated with nematodes

Physa gyrina, 1st intermediary for Glypthelmins quieta 65a.

-, -- -- Halipegus amherstensis 65f.

Physaloptera spp. in carnivores, reviewed 490b. — felidis to P. rara 490b.

Physiology, Ascaridia galli 118bb.

-, Ascaris ova 242m.

-, - lumbricoides 143a, 189a.

-, Eustrongylides ignotus larvae 36i, 55h.

-, helminths 117a, 118ba. -, -, evolution 422a.

-, Hymenolepis diminuta 118j.

-, Neoechinorhynchus emydis 118q, 232c.

-, Rhabditis terrestris 51a. -, Toxocara canis 43a. Pig, Ascaris larvae in 31a.

-, - ova 501. -, - lumbricoides in 95a. —, helminthiasis in 135a.

-, helminths in 55b, 118bo, 140c, 145b. -, Macracanthorhynchus hirudinaceus in 6f.

-, phenothiazine 55d. -, Strongyloides ransomi in 55c.

-, Trichinella & cysticercus in 379b, 498d.

-, trichinelliasis in 323a, 348a, 498c. Pigeon, Tetrameres confusa in 330a.

Plagioporus occidentalis n.sp. in Gobio fluviatilis

Plagiorchidae, development of sporocyst 36f. Planorbidae, not experimentally infected with Schistosoma mansoni in U.S.A. 140f.

Planorbis adowensis, intermediary for Schistosoma mansoni in Sudan 201g.

asmara, intermediary - boissyi var. Schistosoma mansoni 358b.

-pronus, intermediary for Cercaria usaquenensis 457d.

Plants, see also Vegetables.

-, Anguillulina spp. in 138d. - carrying helminth ova 242n.

—, eelworms in 74, 138j, 440 u. —, Heterodera marioni in 52a, 52b, 52c, 52d,

138b, 138f, 138g.

Platalea leucordia, Patagifer n.sp. in 493b. Platycercus icterotis, Cotugnia n.sp. in 204a.

Platydactylus guttatus, Nematotaenia nom.nov. in 458b.

Platyhelmia, see also Cestoda, Trematoda.

-, nitrogen metabolism 423a.

Plerocercoid larva in Catenotaenia 494a. Plethodontidae, helminths in 118bl, 118bm.

Pleurogonius, key to spp. 182b.

truncatus n.sp. in Eretmochelys imbricata 182b. Plotiopsis tatei, 1st intermediary for Echinochasmus pelecani 289c.

Polymorphus sp. larvae in Pagurus longicarpus 118i.

Pomacea paludosa, intermediary for Prionosoma malacophylum 472b.

Pomatiopsis lapidaria, intermediary for Nudacotyle novicia 118m.

Posthodiplostomum antillanum n.sp. in Butorides virescens 472a.

Potato, Anguillulina dipsaci in 487a.

—, eelworms in 197a, 211b, 503. -, Heterodera marioni in 138e.

-, - rostochiensis in 63a, 108a, 138h, 229a, 294a, 400a, 421a, 487a.

- root excretion, technique for standardizing 132a.

Poultry, see also Duck, Fowl.

-, cestodes in 140b.

-, helminthiasis in 17b. 104a. -, helminths in 46a, 139a, 171a.

-, phenothiazine 517.

Prionosoma malacophylian n.sp. in Rostrhamus sociabilis 472b.

- pricei n.sp. in Jacana spinosa 472b.

Proatractonema sciarae n.g., n.sp. in Sciara sp. larvae 496a.

Pronocephalidae reviewed 147a.

Prosorhynchus triangularis n.sp. in Glossogobius giurus 435a.

Proteidae, helminths in 118bn.

Protostrongylus, see also Lungworms. - spp. in Leporidae in U.S.A. 36h.

- indicus n.sp. in goat in India 440i.

Pseudaliidae in Odontoceti 136a.

Pseudonymus brachycercus n.sp. in Hydrous triangularis 1180.

- leptocercus n.sp. in Hydrous triangularis 1180. Psilochasmus longicirratus in Nyroca ferina in

India 142c, 440 f. Psychopathy of helminthiasis in man 469a.

Psychosis & cerebral cysticerciasis 384b. Puerto Rico, filariasis in man 92c.

Puma concolor, cestodes in 200c. — —, Toxascaris leomina in 200a. Pyelosomum parvum n.sp. in Eretmochelys imbricata

Ouerquedula discors, Hypoderaeum conoideum in 83c.

Raillietina (R.) colimia n.sp. in Colimis virginianus 65b.

- fuhrmanni intermedia n.subsp. in Oena capensis 367b.

Rallus elegans, Diorchis n.sp. in 65d.

Rana, see also Amphibians.

- spp., Halipegus n.sp. in 65f.

- fusca, Agamodistomum suis in 73a. - hexadactyla, Chiorchis n.sp. in 7a.

- pipiens, 2nd intermediary for Glypthelmins quieta 65a.

- tigrina, Gendria n.sp. in 56a.

Rat, Litomosoides carinii in 119a.

-, Nippostrongylus muris in 4d, 136b. -, Trichosomoides crassicauda in 118bj.

Ratziidae n.fam. 367a.

Renifer heterocoelium in Eudryas bifossatus in Brazil 449a.

-, excretory system 449a.

Rhabditis terrestris, resistance to osmotic pressure 51a.

Rhadinorhynchus peltorhamphi n.sp. in Peltorhamphus novae-zelandiae 182a.

Rhopalias spp. redescribed 83d.

Rhynchotus rufescens, Syngamus in 385a.

Root-crops, eelworms in 306. Rostrhamus sociabilis, Prionosoma n.sp. in 472b.

Rumex crispus, Heterodera schachtii in 202a. Ruminants, see also Buffalo, Cattle, Goat, Sheep.

-, Dicrocoelium dendriticum in 4400. -, Dicryocaulus in 495c, 502.

-; Gastrothylax crumenifer in 440q.

-, hydatid in 380a. -, lead arsenate 295c.

-, Moniezia in 495c. -, nematodes in 221a.

-, Paramphistomum spp. in 118u. Russia, dictyocauliasis 502, 504 -, Dictyocaulus 495c, 495d, 495h.

-, helminthology 495a, 495 1.

-, helminths in domestic animals 495b.
-, - fowl 10b.

-, Moniezia 495c.

-, Opisthorchis felineus intermediaries 242f.

-, Taenia 242e. -, Thelazia 495f. -, Trichinella 495k.

Salvador, schistosome dermatitis 339a, 339b. Scheloribates spp., intermediaries for Thysaniezia ovilla 208c.

- laevigatus, intermediary for Moniezia benedeni

Schistosoma haematobium, ureteral tumour 397a. - mansoni in Belgian Congo, life-history 416a.

_ — — Brazil, control 245b. - - & creeping eruption in man 213a.

---, effect of vitamin C on egg-shell formation 117b.

- in Euphractus sexcinctus 245b.

- -, intraperitoneal injection of cercariae 491c.

- -, life-history 201g.

Schistosoma mansoni in man in Eritrea 358b. - miracidia not experimentally transmitted to Planorbidae in U.S.A. 140f.

- spindalis in cattle, tartar emetic 112a. Schistosomatium douthitti, life-history 36a.

Schistosome dermatitis 344a.

- in man in New Zealand 134a.

— — — — Salvador 339a, 339b. — intermediaries in Belgian Congo 179b, 179c. ---, control in Southern Rhodesia 310.

Schistosomiasis, anaemia & splenomegaly 394d.

- & appendicitis in man 207a.

- of appendix 346a.

-, liver lesions following treatment 451b.

— in man 15a, 67a, 146a, 426a.

— — —, cardiac complications 278b. — —, diagnosis 154b.

——— in French West Africa, incidence 366a.

---, general account 410 a.

— — in Madagascar, incidence 366a.

— — —, propamidine 154a.

— —, prophylactic treatment 38a.

———, stibophen 394a. ———, summary 426b.

- - Southern Rhodesia, control 310.

- haematobia, case report 409a. - in man in Angola 328a.

— —, treatment 198a.

- mansoni & Banti's syndrome in man 225b.

— — in bladder in man 480 a. — — & cancer in man 477a.

— —, cardiac changes 389c, 417b.

— —, eosinophilia 345a.

— —, gentian violet 260a.

— —, heterogenetic agglutinins 270a. — — in man 113e, 129a, 225a.

———— in Brazil 417b.

_____, control 128a. ———, liver biopsy 463a.

---, pathology 86a. ----, skin tests 444b.

— —, pulmonary, in man 444a, 470a.

Schizothorax niger, Crepidostomum n.sp. in 142d Sciara sp. larvae, Proatractonema n.g., n.sp. in

Sciurus vulgaris, Enterobius n.sp. in 280a.

Scotland, see Britain.

Setaria digitata redefined 440 h.

Sheep, see also Ruminants. —, anthelmintics 467b.

-, arsenates 266a.

-, arsenites 266a. -, carbon tetrachloride 24c.

—, cestodes in 368b.

-, Chabertia ovina in 118r. -, Coemurus cerebralis in 187a.

—, — gaigeri in 365a.

—, copper & nicotine sulphates 30e, 97a, 161b, 261a, 296b.

- sulphate 495j.

-, Cotylophoron spp. larvae in 440n. -, Dictyocaulus in 399a, 495d.

-, Fasciola hepatica in 228a.

-, fascioliasis in 393a. -, Haemonchus in 497b.

-, - contortus in 93a. -, helminthiasis in 70b. Sheep, helminths in 3a, 30g, 31b, 32a, 33a, 57a, 106a, 164, 165, 188a, 223b, 296a, 297a, 298a, 361b, 372a, 372b, 376a, 393b, 446a. -, hydatid in 300 a. -, Igitol 24c. -, liver-fluke disease in 105a, 428a. -, Moniezia in 495j. -, Nematodirus disease in 497a. -, - n.sp. in 467c. -, Oesophagostomum in 26a. -, - columbianum in 287a. —, phenothiazine 3b, 6g, 30c, 30e, 48b, 57a, 62a, 62b, 90a, 97a, 227a, 261a, 261b, 266a, 282a, 295a, 376a, 379c, 392a, 406a, 419a, 446a, 497b, 513. -, pyrethrins 361a. -, stomach worms in 2b, 308. -, strongyloid larvae 495e. -, technique for administering anthelmintics to 295b. -, tetrachlorethylene 30e, 261b. -, toxicity of phenothiazine to 3b. -, Trichostrongylus colubriformis in 6a. Siren lacertina, helminths in 118bn. Skrjabinosomum n.g. for Lyperosomum porrectum 208d. Snails, cercariae in 289d. Solemya velum, Cercaria n.sp. in 118f. South Africa, see also Africa. — —, helminths in domestic animals 215a. ——, —— man 64a. ——, onchocerciasis 233a. - America, see Argentina, Brazil, Chile, Colombia, Ecuador, Uruguay, Venezuela. Southern Rhodesia, schistosome intermediaries - —, schistosomiasis 310. Spain, Fasciola hepatica 271a. -, helminths 458a. -, - in Muridae 149a. -, trichinelliasis 471a. Sparganosis, ocular, in man 205b. Spelotrema pseudogonotyla n.sp. in duck 118c. Sphaerostomum spp. in Cyprinidae in East Prussia - minor n.sp. in Idus melanotus 500b. Sphenorhynchus abdimii, Choanotaenia n.sp. in Sphyrna zygaena, Loimosina n.g., n.sp. in 123a. Spironoura brevispiculata to S. falcata 115a. - falcata redescribed 115a. - hylae Johnston & Simpson 1943 to S. simpsoni 289a. - simpsom nom. nov. for S. hylae Johnston & Simpson 1943 289a. Stagnicola bulimoides, intermediary for Fasciola hepatica in U.S.A. 224b. emarginata, intermediary for Cotylurus flabelliformis 232b. Stephanoprora ornata valid 208d. Stomach worm disease in cattle 223a. ---- in U.S.A. 16a. Stomach worms, see also Haemonchus, Ostertagia, Trichostrongylus. - - in cattle, phenothiazine 160a. - - sheep, differentiation 208. ---, popular account 2b.

Strigeidae in birds in Cuba 472a.

Strigeids in Megaceryle aleyon 288a. Stromitrema n.g. for Eurytrema koshewnikowi Strongyles, see also Strongylosis. of horse, interspecific copulation 55f. Strongylina, taxonomy 55k. Strongyloid larvae of sheep, control 495e. Strongyloides ransomi in pig, pathogenicity 55c. — stercoralis in man in Hungary 99a. ————, life-history 457b. ————, unusual localization 199a. Strongyloidiasis stercoralis in Hylobates concolor --- man 176a, 241c. --- Pan satyrus 360c. Strongylosis, see also Strongyles. - in horse in Argentina 222a. ----, carbon tetrachloride with Allegan 379g. — —, Kachexid 379e. — —, phenothiazine 55e, 170c, 379e, 478a, 508. "Tetraspezial" 510. ———, treatment 379d. ———, "Verminekrin" 379e, 512. - of liver in bovines in India 440t. - in sheep & goats in France, phenothiazine 513. Strongylus spp. in horse, phenothiazine 114a. Subulura brumpti, life-history 288c. Sugar-beet, Heterodera schachtii in 180a, 484a, 484b. Sugar-cane, Anguillulina similis (?) in 272a. Sweden, helminths in dog 482a. -, Heterodera rostochiensis 294a, 400a. trichinelliasis 486a. Sylvilagus, see also Leporidae. - floridanus, helminths in 398a. Syncerus caffer, Onchocerca gibsoni in 179a. Syngamus trachea in birds, acquired immunity — — in Argentina 385a. - - fowl, general account 402a. ----, treatment 107a. Tachygonetria tetrapapillata n.sp. in Gopherus polyphemus in Mexico 331b. Taenia, see also Cysticercus. - in man in Mexico 273d. — — Russia 242e. - ova in peri-anal region of man 273a. - dispar, nomenclature 458b. - saginata, life-history 457f.
- in man, "Acranil" 191a. ----, diagnosis 273c. ____, multiple infection 11c. - solium, life-history 457g. ——, popular names 73c.
—— & T. saginata in man in India 23a. _____, multiple infections 73b. Taeniasis in man, radiography 358c. - saginata in man 201d. Tanacetum vulgaris decoction, in vitro effect on nematode larvae 201c. Tarentola mauritanica, Nematotaenia nom. nov. in 458b. Technique for administering anthelmintics to sheep 295b. - clearing Enterobius 156a. - concentrating helminth ova 30a, 495g.

Technique for "concentration coefficient" in ova counts 205a. - controlling schistosomes with saponin 245b. - - demonstrating Trichinella 324b. - detecting Trichinella larvae 379f. — — diagnosing enterobiasis in man 113c. — — helminthiasis in domestic animals 161a.
— — onchocerciasis 353c. — examining blood for microfilariae 36e. --- faeces for helminth ova 242 1, 322a. --- intestines of domestic animals 6c. -, laboratory, for helminthology 518. - for mounting helminth ova 324c. -- - nematode ova 153a. -- - nematodes & nematode ova 118h. --- parasites 65h. - - staining parasites 173a. - - standardizing potato root excretion 132a. - - testing soil for Heterodera marioni 252a. Teloporiinae to Pronocephalinae 147a. Tolorchis corti it. Kinosternon integrum 83a. Tetrameres confusa in pigeon in Uruguay 330a. - mohredai n.sp. in fowl in India 142b, 440j. Thelazia in horse in East Russia 495f. - californiensis in Odocoileus hemionus in U.S.A. - callipaeda in dog in India 24e. Thereiveryx zeylanicus, Cyclocoelum n.sp. in 7a. Threpterius maculosus, Ascarophis n.sp. in 289a. — —, Cucullarellus n.sp. in 289a.

Thubunaea sp. inq. in Gekko gecko in India 440c.

Thysaniezia ovilla, life-history 208c. Toad, see also Bufo. -, Trichinella spiralis in 500a. Tobacco, Heterodera marioni in 214a, 250a, 250c. Tomato, eelworms in 35-a. -, Heterodera marioni in 443a, 487a. -, - rostochiensis in 487a. Tortoise, Trichinella spiralis in 500a. Texascaris leonina, morphology 200b. - - in Puma concolor 200a. Toxicity, antimony compounds 417b. -, ascaridol 453b. -, carbon tetrachloride IIa. - of copying pencils in meat inspection 348a. -, phenothiazine 3b, 14a, 69a, 316, 478a. -, thionol 389a. —, triphenylmethane derivatives 375a. Toxocara canis, vitamin C content 43a. -Tragopan satyra, see Pan satyrus. Transversotrema haasi n.g., n.sp. in fish 118d. Transversotreminae n.subf. 118d. Treatment, see also Anthelmintics, Nematicides (plant eelworm). -, ancylostomiasis 241a. —, Anguillulina dipsaci 395a. -, ascariasis in man 378a. -, Dictyocaulus 495d. -, elephantiasis 234a. -, enterobiasis 49a. -, helminthiasis 302. —, — in man 247a, 253a, 276a, 509, 519. -, helminths in cattle 145a. -, - domestic animals 221b, 265b, 516. -, - man 466a. -, - - pig 145b. -, - - poultry 171a. -, - - sheep 261b, 266a.

Treatment, hookworm anaemia 242a. -, hydatid 212a, 342a, 381a, 384a, 436b, 448a, 456a, 456b, 462b, 462e, 462f, 464a. —, Hymenolepis **242g**, **242**h. -, parascariasis 379d. -, schistosomiasis 38a, 451b. -, - haematobia 198a. -, strongylosis in horse 379d. -, Syngamus trachea 107a. --, trichuriasis in man 433a, 433b. Trematoda, see also Platyhelmia. Trematodes in Ceylon 7a.

— in fishes in Philippine Islands 435a.

— Neomys fodiens 367a. Triaenophorus crassus in fishes in Canada, control 4452. Trichinella in Bulgaria 379b. --- Caracal caracal in Russia 495k. - larvae, localization in muscle 341a. — in pig, localization 498c. ----, technique for detecting 379f. - in Latvia, incidence 498d. — — man, diagnosis 324a. --- in U.S.A. 285a. - marsh mongoose 498e. - & meat inspection 163b. -, new compressorium 324b. - not found in pig in South Africa 284a. - - stoat & weasel in Britain 43b. -, review of recent literature 498a. — in treated meat, determination of death 313.

— spiralis in toad & tortoise 500a.

Trichinelliasis in Chile, incidence 349a.

—, flocculation test 323a. — in guinea-pig, experimental infection 79a. - & Loeffler's syndrome ir man 181a. — in man 91a, 257a. — in Chile 453a.

— on Chile 453a.

— on complement fixation 420c.

— effect on heart 78a.

— general account 274a. ---, intradermal tests 80a. ——— in Mexico 150a, 273b. — — —, muscular symptoms 271b. ----, myocarditis 412a. — — —, post-mortem findings 378b.
— — in Spain 471a. ———— Uruguay 185c. - - pig, meat inspection 348a. -, sulphonamide compounds 45a. Trichosomoides crassicauda & calculus formation in rat 118bj. - ova, reaction of rat serum to 118bi. Trichostrongylus, see also Stomach worms.
— sp. in man in U.S.A. 118v. — colubriformis in sheep, effect on nutrition 6a. Trichuriasis in man, iron therapy 433a. ——, treatment 433b. Trichuris muris in mouse, immunity 242k. - ovis, phenothiazine 513. - vulpis in dog in India 390c. Tricotyle to Loimos 123a. Trinchopicus cactorum, Syngamus in 385a. Tropics, helminthiasis in man 44a. -, helminths in man 5a, 169a, 219a.

Trout, Diphyllobothrium in 37a, 89a, 89b, 89c,	U.S.A., Trichinella 285a.
89e, 183a.	———, trichinelliasis 144a, 333a, 438a.
Tubangorchis n.g. for Metorchis caintaensis 208d.	———, Trichostrongylus sp. 118v.
Tuberculosis & helminths in man 470b.	— — Tylenchulus semi-penetrans 138a.
— — pulmonary hydatid 356a.	— — Wuchereria bancrofti 118y.
Turdoides griseus, Hymenolepis n.sp. in 204c.	Urine lethal to sheep strongyloid larvae 495e.
Tylenchulus semi-penetrans in citrus in Brazil	Urocleidus mucronatus to U. ferox 177a.
190a.	— procax n.sp. 177a.
U.S.A. 138a.	Urocyon cinereoargenteus, helminths in 231a.
— — & root rot in citrus in Uruguay 268a.	Uruguay, Microfilaria in fowl 330b.
a loot for in cities in Oraguay 2002.	-, Tetrameres confusa 330a.
TT C A Annuilluling opp. 129d	
U.S.A., Anguillulina spp. 138d.	—, trichinelliasis 185c.
— —, Dactylogyridae 177a.	-, Tylenchulus semi-penetrans 268a.
———, eelworms in plants 138j.	
———, —— potato 197a, 503.	Varestrongylus, see also Lungworms.
———, —— wheat 138i.	— capricota n.sp. in goat in India 440i.
— — , Fasciola hepatica 224b.	- pneumonicus, life-history 440m.
— — —, filariasis in man 118bq, 325a.	Vegetables, see also Plants.
— — —, Habronema megastoma 160b.	—, helminth ova & larvae on 267a.
———, helminths in Amphibians 258a.	Venezuela, helminths & tuberculosis in man 470b
————, ——— Canidae 177c.	Vertebrates, see also Animals.
———, —— cat & dog 30d.	-, helminths in 128b.
———, —— domestic animals 118br, 265a.	Vipera lebetina, Hexametra n.sp. in 280a.
———, —— man 4c, 155a, 285b, 430 a.	Wales, see Britain.
———, —— mule deer 398b.	West Africa, see also Africa, French West Africa
———, —— sheep 188a, 297a, 376a.	——, helminthiasis in man 66a.
———, —— Sylvilagus floridanus 398a.	——, helminths in man 76a.
———, —— Urocyon cinereoargenteus 231a.	Wheat, eelworms in 138i.
, Heterodera marioni 52a, 52b, 52c, 52d,	Wuchereria, see also Filariasis.
138b, 138e, 138f, 138g, 251a, 363a.	- bancrofti in man, anthiomaline 113d.
———, — rostochiensis 138h, 421a.	—— transmitted by mosquitoes 118y, 259b.
————, laboratory technique for helminthology	—— transmitted by mosquitoes 110y, 2070.
518	T
— — —, Paramphistomum spp. 118u.	Xenopus laevis, Diplostemum n.sp. in 118e.
———, Planorbidae 140f.	
— —, Protostrongylus spp. 36h.	Zonorchis confusum n.g., n.sp. 418a.
———, stomach worm disease in cattle 16a.	- japuhybae n.sp. 418a.
— — , Thelazia californiensis 12a.	Zonotrichia albicollis, Diplotriaena n.sp. in 158b.
	,

CORRIGENDA

	Serial	•
Volume		
I	39b	(Title) For "223-247" read "225-247"
	63a	(Title) For "MÖNNIG, H. C." read "MÖNNIG, H. O."
	73a	(Abstract) Line 2, For "bulgaris" read "vulgaris"
	119a	(Abstract) Line 15, For "(54 sq. vds. approx.)" read "(2,000 sq. vds. approx.)"
	258a	(Abstract) For "nematode" read "trematode"
	291d	(Abstract) Line 4, For "Looss (1900)" read "Sonsing, 1802."
	393e	(Abstract) Line 2, For "Bigonia" read "Bignomia"
	4212	(Abstract) Line 3, For "Pelegans" read "P. elegans"
7.7	430c	(Abstract) Line 6, For "Monohystera" read "Monhystera"
II	1912	(Abstract) Line 6, For "Metroliastes" read "Metroliasthes"
III	275	(Periodical) To "Zoologische Jahrbücher" add "Abteilung für Systematik,
	0.50	Okologie und Geographie der Tiere
	379n	(Title) For "DIKMANS, A." read "DIKMANS, G."
	397b	(Abstract) Lines 1 & 3, For "Tamerlanea" read "Tamerlania"
IV	435 72d	(Periodical) Add "Abteilung für Anatomie und Ontogenie der Tiere"
7 4	87e	(Title) For "Tichinose" read "Trichinose"
		(Title & Abstract) For "SKADNIK" read "SKŁADNIK"
	494b 581c	(Title) Line 2, For "Syngamus aryngeus" read "Syngamus laryngeus"
	3016	(Abstract) Line 2, Delete "Heterodera schachrii and"

CORRIGENDA

	Serial	
Volume .	No.	
V	62c	(Title) F. W. W. W. Common C.
	286b	(Title) For "THRONE, G." read "THORNE, G."
	2000	(Abstract) Line 3, For "4 cwt." read "10 cwt."
	2200	Line 8, For "peas" read "potatoes"
	339g	(Title) For "ROUDABUSH, R. T." read "ROUDABUSH, R. L."
VI	684j	(*100) I'UI Alculu read ' Headra'
* 7	114q	(Title & Abstract) For "Ruzgumiella" read "Rusgumiella"
	118c	(ALLE) AU FEININGTON A H " wood & DENITATOTON A VI
VII	536a	LANGE OF TAUDURUL PORT PROTECTION OF LIGHT PROTECTION OF THE PROTE
ATT	318d	(Austract) Line 2. For " Tonohris" rand " Tanahria"
	3212	(Austract) For helminths common in cottle and C
VIII	1	
ATTT	171d	
	4.500	(LIUC) FOR BEALLIE I P" word " DEATTE O D !!
737	603a	(Australia Line 2, For "Anoms" read "Anomas"
IX	104d	(Austract) Line 3, For " Stonoting" rand " Chamathama "
	129a	(IIIIE) FOR " NOFFMAN, K" road "KOFFMANT M"
	469a	(TILLE) FOT "a. MACIAL HAES A ET AL" road "a MACATITATIO
		O CALLILLO, D., UNIVERA. I I III HNA II X, ICANACIO T 37
	520b	(110stract) Line I. For "Nohrroong" read " Cahangang"
75	2270	(Title) For "KUGERS, L. ()" road "RODGERS I O"
X	2022	(Austract) Line I, For " I amerianea" read " Tamorlania"
***	2900	(1105) FOT 043-004" read "642-644".
XI	132e	(Abstract) Line I. For "Phagocola" read "Phagicola"
	1040	(Austract) For "braziliense" read "duodengle"
	42Ib	(Abstract) For "Rev. Med. Trop. Parasit., 8, 59-64" read "Ciencia, México,
		0,100 114
XII	451	(Title) Line 1, For "Artenverältnisses" read "Artenverhältnisses"
	14	(Austract) Line 2. For " Cyclocoplum read " Cyclocoplum"
	1123	(Abstract) Line 2, For "Schistosoma spindalis" read "Schistosoma spindalis"
	204d	(Abstract) Line 3, For "can" read "cannot"
		The second secon

